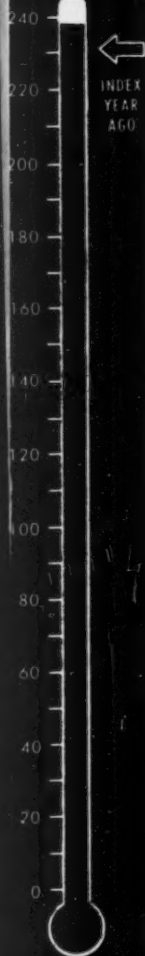


# BUSINESS WEEK

THE COCKEYED  
**Luxury Market**  
PAGE 128



Kellogg's Vanderploeg: New boxes will hit you at eye-level (page 36)

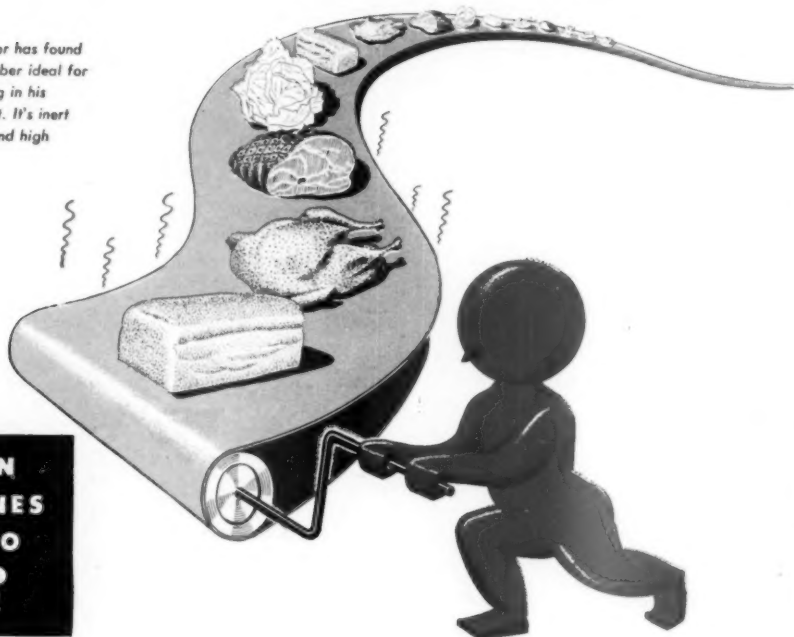
A MCGRAW-HILL PUBLICATION

APR. 12, 1952



## SILICONE PREVIEWS

A food processor has found G-E silicone rubber ideal for conveyor belting in his processing plant. It's inert and can withstand high oven heat.



**WHAT CAN  
G-E SILICONES  
CONVEY TO  
YOU?**

● Did you know that General Electric silicone rubber can be used for conveyor belting where high heat is a factor? It's being done—thanks to the phenomenal heat-resistance (up to 500 F) imparted by silicones. Similarly, another manufacturer is now using G-E silicone rubber wheels to transport hot glass.

G-E silicones are capable of conveying *ideas* as well as *things*. Their remarkable properties have brought new ways of improving products and processes to many industries. They've made possible new auto and furniture polishes; a new class of electrical insulation; new uses for rubber-like material; new paints; new mold-release and anti-sticking agents; new water repellents. G-E silicones are a *new class of materials* with tremendous potential for development—one that every manufacturer will want to investigate.

### G-E SILICONES FIT INTO YOUR FUTURE

Let us send you an interesting booklet—*The Silicone Story*—that describes some of the things which have been done with G-E silicones. It may give you some ideas on how you can profit from the use of these unusual materials. Just mail the coupon!



**General Electric Company**  
Section B-3  
Waterford, N. Y.

Please send me my free copy of *The Silicone Story*.

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Firm

Street

City  Zone  State

(In Canada, mail to Canadian General Electric Company, Ltd., Toronto)

### THE FOUR BASIC PROPERTIES OF G-E SILICONES



Resistance  
to temperature  
extremes



Inertness to  
metals, rubber,  
many chemicals



Release  
from  
sticking



Unusual  
surface  
characteristics

*You can put your confidence in—*

**GENERAL  ELECTRIC**



*"LISTEN! THERE IT IS AGAIN! IT'S LOST!"*

## The Call that Saved a Plane

**How an alert telephone operator  
helped a military transport plane land in  
a snowstorm in the dead of night**

A heavy snow was falling in the winter darkness when Mrs. Lucille Wilson, night operator at Alamosa, Colorado, heard the sound of a low-flying airplane. It was well past midnight and Mrs. Wilson knew that the last scheduled airliner had gone over many hours before.

Then she heard the sound of a low-flying plane again as it circled back over the town.

A light flashed on Mrs. Wilson's switchboard. Soon as she said "Number please" an anxious voice said—"This is Ralph Zook, dispatcher down

at the railroad depot. Did you hear a plane? Didn't sound right, somehow. It's flying pretty low."

"I heard it, too," said Mrs. Wilson. "And there's no plane scheduled this time of night."

"That plane could be in trouble," said Mr. Zook. "We ought to do something about it."

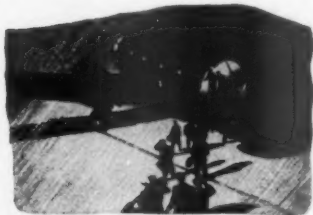
"I'll try to reach someone to turn on the lights at the airport," said Mrs. Wilson. "Listen! There it is again! It's lost!"

Quickly Mrs. Wilson went into action. She called the airport, the government weather station, and a private flying service. But no one answered.

Then she reached Stamy Edmisten, an airline employee, at his home. He rushed to the airport and turned on the landing lights. A few minutes later a C-46 military transport loomed out of the snowstorm and came in for a safe landing. Thirteen men stepped from the plane, none the worse for the experience.

What could have been tragedy was prevented by quick-acting Ralph Zook and Stamy Edmisten and the alert, cool-thinking operator, Mrs. Lucille Wilson—one of about 650,000 telephone men and women guarding and serving America, twenty-four hours a day, in every kind of weather.

**BELL TELEPHONE SYSTEM**



The landing lights were turned on and the big C-46 came safely to earth.



## Clean Air and Your Hospital



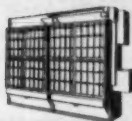
Today clean air's importance to surgery ranks with sterile instruments, masks and rubber gloves. Surgeons know that air-borne dust and dirt can recontaminate sterile apparatus and are a dangerous source of infection for open incisions. That is why AAF equipment is used to supply super-clean, dust-free air to operating rooms and other critical areas. Today . . . clean air is a must in hospitals.

Write for "Dust, Dollars and Dividends" . . . the dramatic story of dust, its problems and their profitable solution.

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COMPANY, INC.

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PRECIPITATORS



AIR FILTERS



ROTO-CLONE  
DUST COLLECTORS

*It Subtracts...  
so Pilots can  
"add up the score"*



# Everyone Can Count on VEEDER-ROOT

Yes, jet pilots count on this interesting instrument to tell them how much fuel is left . . . when they'd better "hit for home." And in the same way, it counts rounds of ammunition remaining in the plane's machine guns, the number of film-exposures remaining in aerial cameras, etc., etc. So you can see how one type of Veeder-Root Counter can come up with many answers to many problems. And within the literally *infinite* scope

of the counting process, there may well be some badly needed answers we can work out for you . . . if your work is badly needed for defense. Write.

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Chicago 6, Ill. • New York 19 • Greenville, S. C.

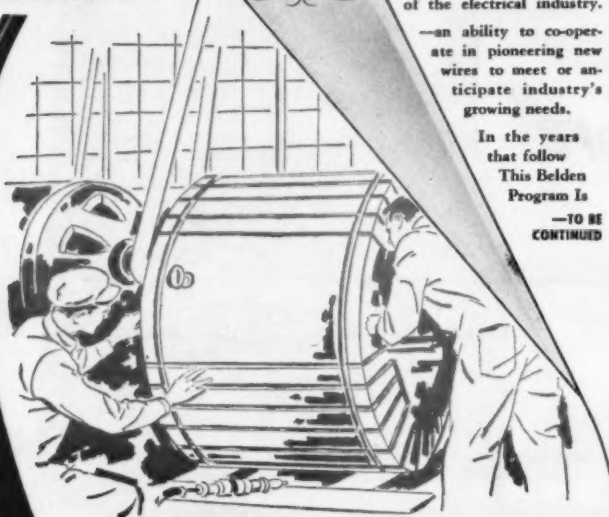
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motors and  
generators...



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**CUT COSTS** in lowered production waste and fewer rejections upon inspection. Cut costs by reducing customer complaints—cutting repair comebacks—assure low-cost maintenance and customer good will.

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plus protection  
in Belden  
Magnet Wire

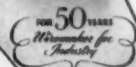
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To You,  
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—an ability to co-operate in pioneering new wires to meet or anticipate industry's growing needs.

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that follow  
This Belden  
Program Is

—TO BE  
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BUSINESS WEEK • April 12, 1952

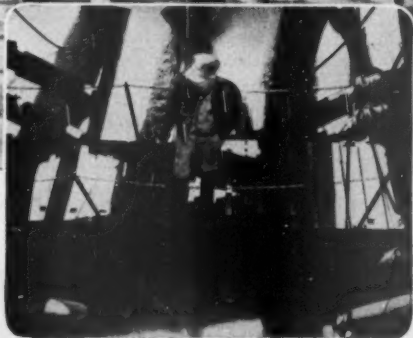
# What's U. S. Rubber doing to handle the rise and fall of Mississippi water?



Water supply for an industrial plant (3900 gallons per minute) is pumped through this system 24 hours a day. The system conveys the water from a pontoon pumping station to the lines shown here.

No longer does the 16-foot rise and fall in the lower Mississippi sever the water-supply lines of an industrial plant. United States Rubber Company engineers installed special Water Discharge Hose which act as "hinges" as the water rises and falls.

"U.S." makes hose of every nature and type. Moreover, "U.S." engineers will design special types for you. Very often they have solved problems quickly and economically by means of hose, where hose had never been used before. For more information, write to address below.



The U. S. Water Discharge Hose connect the pontoon intake and the pumping station to the water lines.

PRODUCT OF

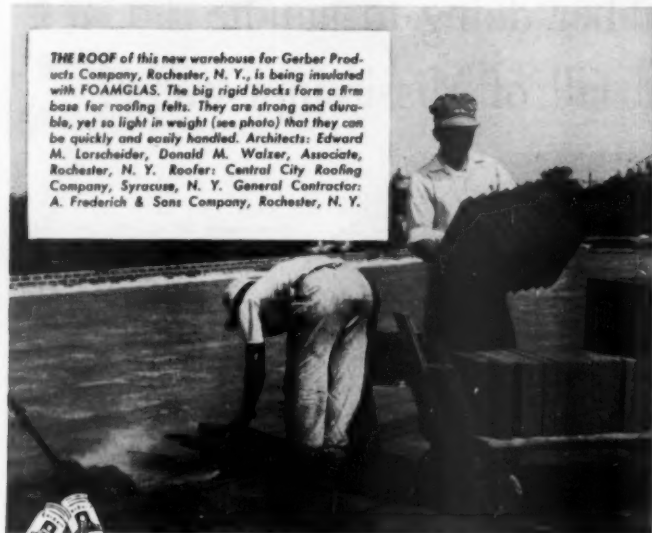


**UNITED STATES RUBBER COMPANY**

MECHANICAL GOODS DIVISION • ROCKEFELLER CENTER, NEW YORK 20, N. Y.



THE ROOF of this new warehouse for Gerber Products Company, Rochester, N. Y., is being insulated with FOAMGLAS. The big rigid blocks form a firm base for roofing felts. They are strong and durable, yet so light in weight (see photo) that they can be quickly and easily handled. Architects: Edward M. Lorscheider, Donald M. Walzer, Associate, Rochester, N. Y. Roofer: Central City Roofing Company, Syracuse, N. Y. General Contractor: A. Frederick & Sons Company, Rochester, N. Y.



## Incubating baby foods with FOAMGLAS —the cellular glass insulation

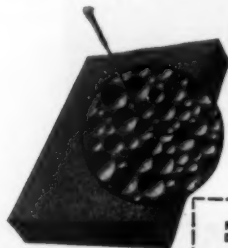
● Precise temperature control is a vital factor in the care of tiny babies—and in the processing and storing of their prepared foods. So the use of FOAMGLAS in this prominent baby food plant is important evidence of its insulating efficiency.

In walls and under floors, on roofs and ceilings for all types of normal and low temperature installations—on indoor and outdoor pipe lines, on valves, fittings and process equipment—FOAMGLAS is helping to maintain desired temperatures. Its high resistance to moisture, fumes and other destructive elements means freedom from costly maintenance, repairs and replacements.

Because of its cellular glass structure, FOAMGLAS not only minimizes heat flow when first installed, but also retains its original insulating ability throughout many long years of cost-free service. That is why so many users have found FOAMGLAS the most effective and economical insulation.

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Please send me, without obligation, a sample of FOAMGLAS and your FREE booklets on the use of FOAMGLAS for: Normal Temperature Commercial, Industrial and Public Buildings ☐ Refrigerated Structures ☐ Piping and Process Equipment ☐

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Address.....

City..... State.....

## In BUSINESS this WEEK...

### ● Steel Strikes...

... begin officially at 12.01 midnight, but actually the shutdown starts a week earlier. Here's a pictorial record of how it begins—furnaces being banked, pickets organized, emphasis on canned goods in the supermarket. P. 22

### ● Supermarket...

... in the kitchen is possible with deep freezers. That fact is having a sharp impact on food distributors now—and it could bring an upheaval in the retailing business. P. 30

### ● Organization...

... thinking is changing. Has business created an unwieldy, totalitarian structure for big companies? Here are the results of a two-year research job done by the American Management Assn. P. 42

### ● \$10-Billion...

... in world trade. That's the bait Moscow has offered the West. With world trade slumping here and there, the offer got attention. But the outlook isn't that bad. P. 192

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NUMBER FOUR IN A SERIES



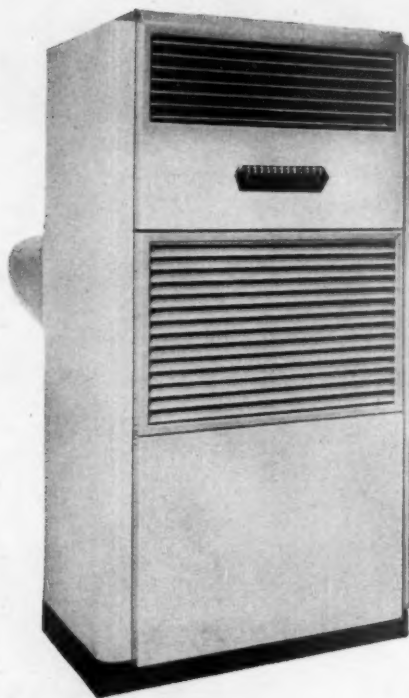
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you need...**



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# BUSINESS OUTLOOK

BUSINESS WEEK

APRIL 12, 1952

A  
BUSINESS  
WEEK

SERVICE

Steel will be produced. Steelworkers will get their wage boost. And stockholders of the steel companies will take the rap in lower profits.

That about summarizes the White House's handling of the dispute.

To be sure, some steel output has been lost (page 24) and is being lost. Seizure of the industry didn't go off smoothly. And the last has not been heard of this wage-price wrangle by a long way.

But the short-run effect certainly looks like profit control.

Wage stabilization from now on is a joke. Few companies or industries will be much interested after this in taking the one-way street of hearings before the wage board.

In steel, CIO is shattering the pay ceiling, just as it intended.

If most other indicators weren't deflationary right now, price controls would be wrecked by the steel case, too.

As things stand, the effect of steel wages on prices is postponed.

But remember: A new round of wage increases now is in full swing (page 176). Prices have to reflect this later, if not now.

Superficially, at least, we seem to have produced our way right out of inflation.

Steel makers, even though they may be in Washington's doghouse over prices, can claim a good deal of the credit for this.

The industry's capacity now is officially reported at better than 109-million tons a year. Nearly 3-million additional tons will be added this quarter. That's up from roughly 90-million tons in 1946.

That's helped a lot to ward off harsh civilian shortages.

Industry's production record, steel included, gets a lot more credit than government for damping down the price rises.

Plentiful goods, not ceilings, started the price slide a year ago.

And, if any single thing could be counted on to start prices rising again, it would be just such a "wage pattern" as that suggested in steel.

Moreover, higher wages without adequate price adjustments kill the incentive to expand and produce. They also encourage downgrading of merchandise (as in 1943-45), a form of inflation in itself.

Sparks of inflation still lurk in rising wage-and-salary payments—and could be fanned into flame by any kind of price scare.

Such payments went up at a yearly rate of \$1-billion in February. The rate of rise will speed up as the new wage round takes hold.

Think what this means in purchasing power. Wages and salaries are already more than \$10-billion higher than a year ago. And each dollar will buy more than it did a year ago, due to the intervening price cuts.

Viewed that way, consequences of any spending spree are frightening.

Consumers, for their part, still are stand-offish. They have to be coaxed into letting go of a larger share of their money.

Even a late Easter hasn't helped much. Sales are disappointing.

New York appears to have made one of the poorer retail showings.

# BUSINESS OUTLOOK (Continued)

## BUSINESS WEEK

APRIL 12, 1952

Even with lovely weather last week, Gotham's department stores pulled only 1% ahead of a year ago—and the comparison, of course, is a pre-Easter week this year against the week after Easter in 1951.

Philadelphia did better. With intensive promotions and many stores staying open evenings, a gain of 14% was posted.

•  
Another easing of credit controls—this time eliminating down payments on articles costing less than \$100 instead of \$50 as before—still leaves the main question unanswered:

Could very many more autos and refrigerators and TV sets be sold if the Federal Reserve Board's Regulation W were wiped out entirely?

Total instalment credit, to be sure, is \$173-million below a year ago—the total standing at \$13.2-billion at last report.

But steep payments may not be the only stumbling block. Charge-account debt, which is not regulated, is down even more sharply from a year ago. The total, now at \$4-billion, is off \$225-million in a year.

•  
Signs of oversupply continue to pile up in passenger car tires.

Dealers are offering cut prices. One of the middle-sized producers this week announced a cut in the work week from six days to five. And manufacturers' inventories are comfortable—if not large.

Production outran shipments by more than a million casings in February. That pushed the inventory up to nearly 9.2-million tires.

•  
Construction, now going into its seasonal rise, is off to a big start. March saw work valued at \$2.2-billion put into place—a new record for the month, a shade above last year's peak.

Of course, the large volume of government work swells the figures. Public construction was 18% over a year ago, private outlays down 4%.

•  
Brightest spot in private construction is industrial. This edged up to a new peak at \$212-million last month, 48% ahead of a year ago.

But residential building is making a surprisingly strong showing.

The value of work on nonfarm dwellings in March was \$784-million. Rising more than seasonally, this topped February by \$116-million. Also, the lag behind a year ago was narrowed to 9%—best in almost a year.

Thus it would seem that materials, credit restrictions, and spotty shortages of mortgage money (page 162) aren't too much of a handicap.

•  
Commercial construction, recently dragging near postwar lows, should have a good pickup before long.

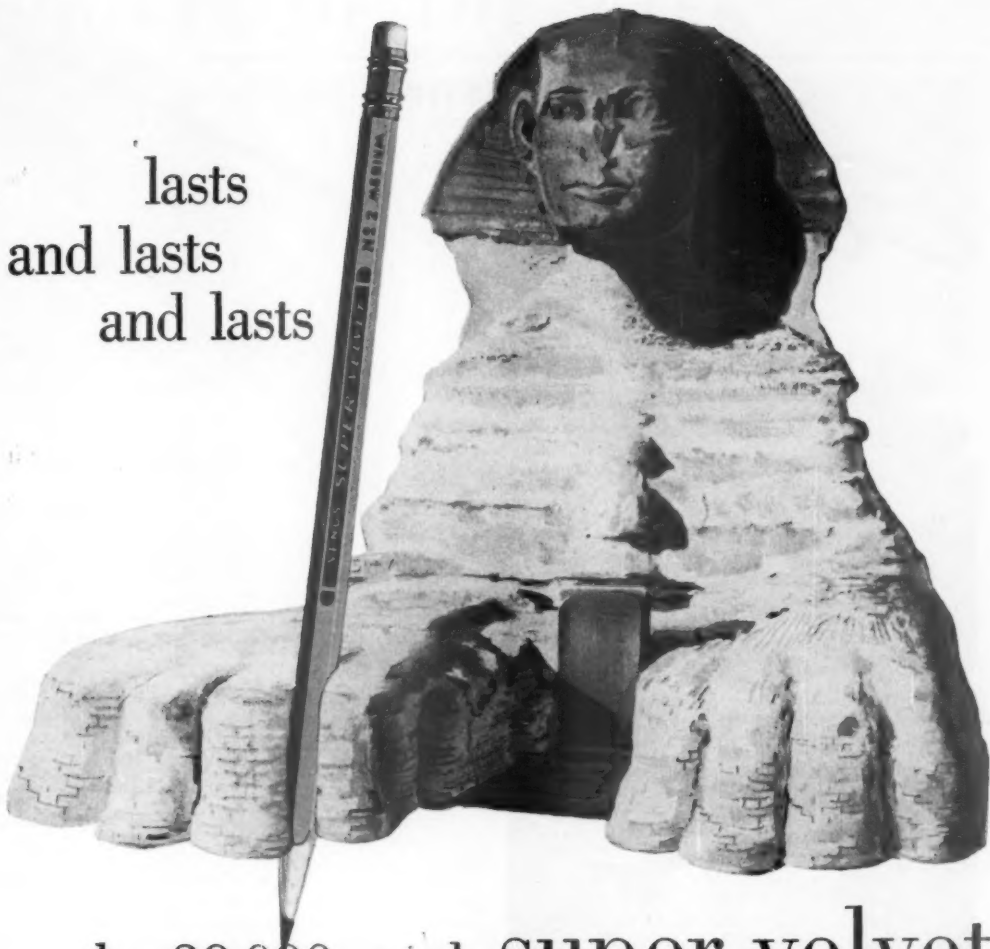
There was a bounce in March as restrictions were eased a bit. And the gains should be progressive through the summer as the large number of deferred projects gets the green light.

•  
Once again there are rumblings of high-priced homes selling slowly.

The Federal Reserve Bank of Boston notes that "the supply of larger, more expensive houses is catching up with demand" in New England, and adds that some speculative builders have offered price concessions.

In Ohio, the state association of real estate boards says activity has slowed down on higher-priced homes, blaming high down payments. There's plenty of need for them, though, says executive secretary Leroy Parsons.

lasts  
and lasts  
and lasts



## the 39,000-word super velvet

The great, new Super Velvet seems to go on forever!

**It's more economical** . . . writes 39,000 words in actual tests . . . that's more than four months at an average 500 words per working day! **It's smoother** from the first word

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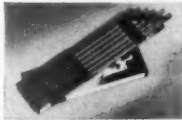
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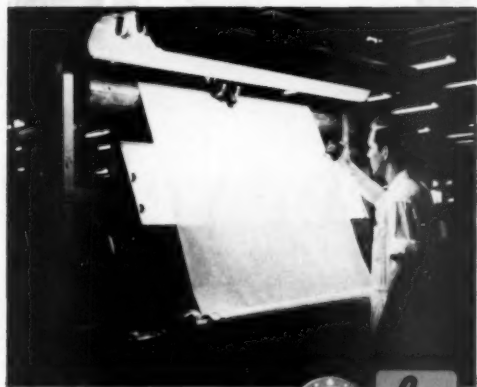
American Pencil Co., Hoboken, New Jersey, makers of the famous Venus Pencils and Venus Pens.

\*Exclusive Venus process.



## MAKING PLASTIC

# Elastic



Production of vinyl plastic film, a popular rainwear material made possible by Ohio-Apex plasticizers.



Trade Mark



Most synthetic plastic resins, today, would be hard, brittle, and inflexible were it not for the chemical and physical characteristics imparted to them by the addition of suitable *plasticizers*. It is these specially formulated chemical ingredients that make modern plastic products . . . from garden hose to luggage, rainwear to insulated wiring, and blood plasma tubes to auto seat covers . . . stay tough, flexible and durable, resisting oil, water, wear, sunlight and aging. Through many years of continuous research and development, Ohio-Apex, Inc., a division of FMC, produces one of the most complete lines of *plasticizers* obtainable from one source . . . to serve the varied needs of the vast Plastic Industry.

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**SUBSIDIARIES:** Propulsion Engine Corporation • Simplex Packaging Machinery Inc. • Smith Industries, Inc. • Stokes & Smith Company Oakes Manufacturing Company



S & S PAPER BOX EQUIP.



WESTVACO INDUSTRIAL CHEMICALS



FMC MATERIALS HANDLING EQUIP.



JOHN BEAN GARDEN SPRAYERS



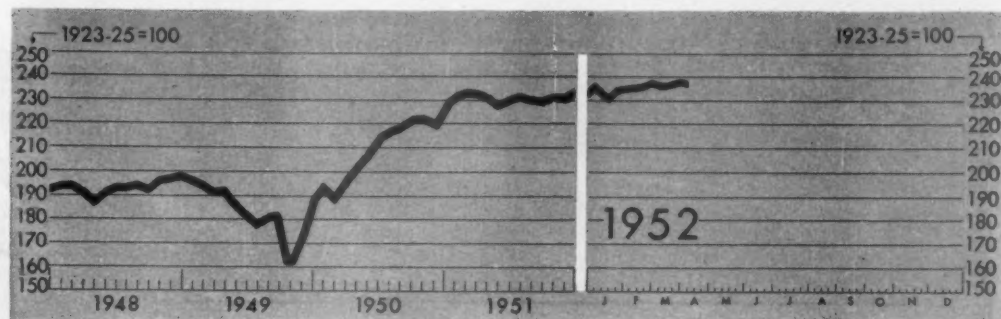
PEERLESS HOUSEHOLD PUMPS



FMC FOOD PREPARATION EQUIP.



# FIGURES OF THE WEEK



**Business Week Index (above) . . . . .** <sup>§</sup>238.4    †239.1    237.5    230.4    173.1

## PRODUCTION

Steel ingot production (thousands of tons) . . . . .	N.A.	2,120	2,114	2,045	1,281
Production of automobiles and trucks . . . . .	127,039	†132,850	115,126	158,076	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands) . . . . .	\$45,690	\$45,494	\$39,489	\$46,774	\$17,083
Electric power output (millions kilowatt-hours) . . . . .	7,200	7,263	7,497	6,736	4,238
Crude oil and condensate production (daily av., thousands of bbls.) . . . . .	6,377	6,402	6,421	6,127	4,751
Bituminous coal production (daily average, thousands of tons) . . . . .	1,635	†1,593	1,715	1,710	1,745

## TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars) . . . . .	76	76	78	81	82
Carloadings: all other (daily av., thousands of cars) . . . . .	44	44	48	45	53
Department store sales (change from same week of preceding year) . . . . .	+13%	-10%	-15%	-14%	+30%
Business failures (Dun and Bradstreet, number) . . . . .	185	164	170	195	217

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100) . . . . .	434.6	435.9	436.6	520.6	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100) . . . . .	283.3	286.7	291.0	365.1	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100) . . . . .	335.4	333.3	339.0	406.2	274.7
Finished steel composite (Iron Age, lb.) . . . . .	4.131¢	4.131¢	4.131¢	4.131¢	2.686¢
Scrap steel composite (Iron Age, ton) . . . . .	\$42.00	\$42.00	\$42.00	\$43.00	\$20.27
Copper (electrolytic, Connecticut Valley, lb.) . . . . .	24.500¢	24.500¢	24.500¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.) . . . . .	\$2.50	\$2.50	\$2.48	\$2.43	\$1.97
Cotton, daily price (middling, ten designated markets, lb.) . . . . .	41.71¢	41.46¢	40.01¢	45.14¢	30.56¢
Wool tops (Boston, lb.) . . . . .	\$1.85	\$1.85	\$1.90	\$4.70	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's) . . . . .	190.3	192.2	188.1	172.1	135.7
Medium grade corporate bond yield (Bas issues, Moody's) . . . . .	3.49%	3.50%	3.52%	3.31%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate) . . . . .	2½%	2½%	2½%	2-2½%	1-1½%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks . . . . .	51,162	51,909	52,625	49,042	††45,210
Total loans and investments, reporting member banks . . . . .	73,111	73,728	73,423	70,122	††71,147
Commercial and agricultural loans, reporting member banks . . . . .	21,172	21,364	21,155	19,206	††9,221
U. S. gov't and guaranteed obligations held, reporting member banks . . . . .	31,163	31,961	31,718	30,674	††49,200
Total federal reserve credit outstanding . . . . .	23,409	23,413	23,883	23,813	23,883

## MONTHLY FIGURES OF THE WEEK

		Latest Month	Preceding Month	Year Ago	1946 Average
Personal income (seasonally adjusted, in billions) . . . . .	February	\$257.1	\$257.7	\$243.3	\$177.7
Farm income (seasonally adjusted, in billions) . . . . .	February	\$20.2	\$21.9	\$20.4	\$18.9
Manufacturers' inventories (seasonally adjusted, in billions) . . . . .	February	\$42.1	\$42.2	\$34.7	\$20.5
Wholesalers' inventories (seasonally adjusted, in millions) . . . . .	February	\$9,717	\$9,951	\$9,715	\$5,505
Retailers' inventories (seasonally adjusted, in millions) . . . . .	February	\$18,189	\$18,061	\$19,044	\$9,359

\* Preliminary, week ended Apr. 5.

†† Estimate (BW—Jul. 12 '47, p. 16).

N.A. Not available.

† Revised

§ Date for "Latest Week" on each series on request



## Husky haulers on the steel highways

Diesel-electric locomotives are marvels of speed and pulling power. A dozen years ago less than a thousand were in use. On America's railroads today, some 19,000 diesel units are hauling more than half the nation's passengers and freight.

Powerful storage batteries are required to start these giants of the rails. In the passenger cars, other batteries provide power for lighting and air-conditioning. And in every department of railway signaling and communications, storage batteries

are vital equipment. For all of these important services, thousands of Exide Batteries are being used.

*There are Exide Batteries for every storage battery need. They supply motive power for battery-electric*

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BATTERIES

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industrial trucks and mine haulage units that help to speed production and cut handling costs. Exide Batteries are used extensively by telephone, telegraph and cable companies...radio and television stations...electric light and power plants.

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1888...DEPENDABLE BATTERIES FOR 64 YEARS...1952

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia 2 • Exide Batteries of Canada, Limited, Toronto

# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
APR. 12, 1952

A  
BUSINESS  
WEEK  
SERVICE

Washington is in a mess, improvising as one tangle follows another. Truman's control, never very strong, is weaker now that he's retiring. It will be January before a new Administration comes to power and gives anything like firm direction. The prospect meantime is for weak and wobbly government, dominated by politics.

What's happening can be seen by a look at developments.

Take the steel snarl. Washington had its hand in the wage dispute from the start, supposedly to fight off another round of inflation. Then it wound up backing a stabilization-cracking wage boost, and insisting on only a small rise in prices. Industry balked, and Truman seized it (page 22) to avoid a strike.

Prices will rise with wages, ultimately, which means that consumers will pay for Truman's generosity to a political ally.

Congress is taking the bit in its teeth. It never followed Truman with any regularity. And now that he's only a "temporary" President, Congress pays him even less attention. It's every man for himself now in the scramble for reelection. It's showing up in legislation.

Rewriting of the control law is sure. Congress would much prefer to let wage and price regulations die after what happened in steel. But it fears prices might spiral up later, and it would get the blame. So chances are it will keep the law—but with changes.

Price relief to offset government-approved cost rises, such as wage hikes, is getting support and may wind up in the law.

Consumer credit terms will be eased. That's to stimulate sales of such things as autos, appliances, etc.

Rent control will stay. It's a matter of political arithmetic: There are more tenants than landlords.

Material controls will remain, too, although present figuring is that they can be dropped on most things early in 1953.

Truman will have to accept a control compromise. His own leaders say that's the best he can get out of Congress. And the time limit on the powers may be Mar. 31, 1953. That would give the new Administration time to get an extension next year, if any continuation of controls should be necessary.

There's real trouble for Truman on the money bills. Congressmen are hearing from home about the big spending and the high taxes. So they are making real threats to do some slashing.

Cuts thus far amount to about 10%. That's the average in the House on bills handled up to now (it would add up to about \$7-billion-plus in savings). Defense is taking a whack along with the other agencies, on the grounds it has asked for more than it can spend.

Congress will vote to give the states the tideland oil. The bill will be vetoed by Truman. So this issue will carry over to next year.

Retail price maintenance, the so-called fair trade law, won't get support

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
APR. 12, 1952

of the federal government this year. True, many members of Congress will back it—for an election-year record. But the chances of a bill becoming law over Truman's veto are slender.

Senatorial status for ex-Presidents has a strong push behind it. Truman's friends want it for him. Hoover would come in on it, too. But the former Presidents couldn't vote. Theirs would be the advisory roles of elder statesmen.

The collapse of the scandal hunt is part of the Washington foul-up. Old-timers can't recall a comparable spectacle.

Truman could have saved Newbold Morris. He knew of McGrath's firing plan and could have vetoed ousting of the investigator.

Why didn't he? The White House won't say. But it's a good gamble that Truman saw an opportunity to shed two headaches—Morris because he was out to lift the lid, and McGrath because he was a liability.

McGranery will have a tough row to hoe as new attorney general. He's pretty much of a down-the-line organization Democrat, indebted to Truman for his federal judgeship. Even if he makes a real cleanup try, he will be suspected of whitewash.

Kefauver has the big city bosses in his party plenty worried. They don't want him and now wonder if they can stop him.

Gov. Stevenson of Illinois is their preference. He will meet Kefauver head-on in the Oregon primary May 16. If Stevenson takes a bad licking there, it will hurt his chances when the convention comes up.

Taft is holding on to his No. 1 spot in the GOP race for delegates. Illinois helped him recover from Eisenhower's gain in Iowa and his strong showing in Michigan.

Eisenhower will answer his "where-does-he-stand" critics when he returns. His managers have plans for a series of public appearances.

A labor-liberal political split is in the making. Odds are that these groups won't be solidly behind the Democrats this time.

The CIO is plugging Stevenson as their first choice, but will back Kefauver, if he's the man. It plans to stay with the Democrats.

ADA is for Stevenson (that's the Americans for Democratic Action). But if Stevenson fails, they might go to Eisenhower, if he's the GOP man.

Green of the AFL likes Eisenhower. Green has been with the Democrats, but he has played second fiddle to the CIO's Murray.

A play for the farm vote is coming in Congress. Under present law, support price levels on major crops would drop at the end of next year. So the farm-staters are about to get to work on amendments to the law. The plan is to keep supports at the present level, and do it now.

Businessmen troubled by lagging sales should take a look at the survey of consumer intention to buy, just issued by the Federal Reserve Board (page 19). It shows why the buying public isn't in any mood to splurge. You can get the full text by writing the Federal Reserve Board, Washington 25, D. C. Copies are free.

More  
women  
go out  
and buy  
Woman's Day  
than  
any other  
magazine  
in the  
world\*



\*3,794,000 average 1951 single-copy sales per issue... the world's largest single-copy circulation. On sale at all A&P stores.

## New Departure operates guns-and-butter plants



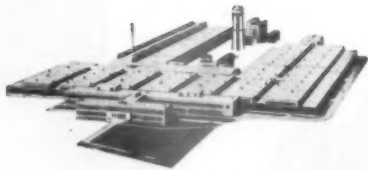
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# NEW DEPARTURE

*Nothing Rolls  
Like a Ball...* **BALL BEARINGS**

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT



	1 Here's what FRB's consumer finance survey said would happen in 1951:	2 Here's what actually did happen:	3 Here's what FRB's new survey says will happen in 1952:
<b>HOUSES</b>	"... Close to 1-million had fairly definite plans to purchase new houses during 1951."	Consumers actually bought almost 1-million new houses.	About the same, or slightly fewer new houses than last year.
<b>AUTOS</b>	"... There was a decided drop in the number planning to buy new cars."	Auto output dropped 20%.	Consumers plan to buy fewer new autos than last year.
<b>MAJOR CONSUMER HARD GOODS</b>	"... Demand for major consumer goods will be smaller in 1951 than the annual rate of the second half of '50."	Sales of retail home-furnishing stores dropped 11%.	Plans to purchase household goods appear to be less frequent than in 1951.
<b>PRICES</b>	"... Seven in every 10 consumers thought the prices of the things they buy would rise during the year..."	The consumer price index rose 4% during the year.	Six out of 10 consumers expect prices to go up. One out of 10 expects a drop.

## Consumer Buying: No Rise in Sight

Businessmen, licking their chops over an expected spring pickup in business, got some sad news last week. The Federal Reserve Board's annual survey of consumer finances finds that people have no intention of stepping up their buying. Worse still, indicated demand for a large number of consumer hard goods shows signs of getting softer as the year goes on.

People show no inclination to spend their big backlog of savings. In fact, if intentions are carried out, the recent record rate of savings may even be increased.

• **Preliminary**—Here's a rundown of the survey's preliminary findings on the major items that consumers buy:

• Fewer people are planning to buy new autos than were planning to a year ago. On used cars, intentions haven't changed much.

• Fewer consumers intend to buy major household goods. Demand for refrigerators, console radios, and washing machines is less than that for major household goods as a whole. However, TV sales look able to hold up to last year's volume.

• New house purchases in 1952 will be about the same as, or a little less than, a year ago—if price, quality, and credit requirements do not change much.

The survey was made for FRB by the Survey Research Center of the University of Michigan, which did its sampling of consumers in January and February. The board points out that the survey does not forecast what people will actually do, but shows what they intend to do. Ultimate buying can be shifted by developments not foreseen by the consumers at the time

that they are interviewed. But it would probably take something really big, like a war, to make people change their plans.

### I. It's Always Been Right

The FRB's survey is only one of the tools used by economic analysts in trying to guess which way the consumer will jump. But up to now it has been a mighty useful one.

The surveys have had an excellent record for accuracy ever since they got under way in 1946. In some years the study has missed out on a few details, but it has correctly called the shots on all the major consumer spending patterns.

In two years—1949 and 1951—the predictions ran counter to the thinking of most businessmen and economists;

both times events bore out the survey practically 100%.

• **Couldn't Lose**—Of course, for the first couple of years after the war, the Fed was shooting with loaded dice. The high backlog of war-built liquid savings and the deferred demand for all types of consumer products insured a strong market. There was nothing revolutionary about it in 1946, when the board said that "strong inflationary pressures will continue in the consumer goods markets," "the use of installment credit will be substantial," and "the present demands for consumer goods will continue to exceed production." Plenty of other people were saying the same thing.

Again in 1947, a lot of people with a fair amount of foresight joined the Fed in predicting strong consumer demand and a lessening in inflationary pressures.

• **Getting Tougher**—But beginning with 1948, the consumer finance surveys began to track through an uncharted economic wilderness. Just how strong consumer demand would be was anybody's guess.

The first major test came in 1949. People were quizzed in January and February, before they knew that the first postwar recession was going to hit. Buying plans showed no letup from the peak rates of the previous year. And, in the event, consumers spent everything they said they would—despite a dip in employment and production that could have made people change their minds. Most of the other crystal ball gazers had missed the picture completely, figuring that a drop in income would make the consumer retrench.

Just the reverse occurred in 1951. Business was booming when the survey was made, right in the middle of the second post-Korean buying wave. But consumers indicated a slowdown in their purchases of autos, houses, and major durables. Traditional thinkers figured a rise in income would mean a boost in spending. This never occurred; for the second time consumers did just what they said they would, not what most experts predicted.

• **"Economic Man"**—A similar switch is indicated by the preliminary results of this year's survey. The consumer is stubbornly refusing to act like the "economic man" he is supposed to be. Hence the long promised pickup in business may not come off. So far, the consumer has clung to his original intentions with annual regularity. Generally, he is unaware of shifts in the economic winds unless they bowl him over personally.

## II. Skeptical Consumers

In this year's survey, there's one significant change from 1951 that bodes no good for business. Roughly six out

of every 10 consumers think 1952 is a bad time to buy major durable goods. Not so many held that view last year. High prices are the main reason given for this unwillingness to unzipper well-filled pocketbooks.

Paradoxically, people were thus lackadaisical in their purchasing plans despite the fact that six out of 10 of them thought that prices would rise during the year. Even with high prices in prospect, only one in 10 thought that now is a good time to buy. Hardly anyone feared that shortages would make goods unavailable; that contributed substantially to the general lack of buying interest.

As an even gloomier sign, consumers expect their purchases to drag despite the fact that they foresee a rise in income. Four out of 10 expect to get a raise; only one out of 10 thinks his income will drop.

• **More Savings**—If consumer expectations on spending and incomes are fulfilled, savings are likely to climb even higher than their present peacetime peaks. All along, merchants have been gazing wistfully at the phenomenally high rate of savings. It isn't any lack of income that has been hurting sales. The trouble has been that a decreasing proportion of income has been ending up in cash registers. The savings ratio is now over 9%—about double the "normal" rate.

The Fed's interviewers asked people with above-\$3,000 incomes what type of investment they preferred. About half named U. S. savings bonds. But a shift in preference away from the bonds was evident, continuation of a gradual trend first noted in 1949.

The shift away from savings bonds was more prominent for incomes of over \$5,000. Bank deposits and common stocks increased in popularity.

Only about half of those whose savings bonds are coming due this year and next intend to plow the money back into such bonds. Some merchants have a hopeful eye cocked at the \$3.5-billion coming due in 1952, and the more than \$5-billion maturing in 1953. There could be considerable cash lying around loose unless the government steps up its bond sales campaign.

• **Home Buying**—In its questions on housing, the Fed included one on 1953 prospects. The answers suggest that there is plenty of life left in the post-war housing boom. Just about as many people are thinking of buying new houses in 1953 as there are with such plans for this year.

The sagging in the car market is largely a matter of price, the survey indicates. The Fed surmises that the number of people who want to buy cars this year will be no greater than the number of cars that can be turned out under current material limitations.

## Easing Credit

**Federal Reserve says it won't relax consumer limits. But Congress is breathing down its neck.**

This week the Federal Reserve Board felt itself under heavy pressure to relax consumer credit controls. The Fed bristled, said it would do no such thing. But behind the words lay a feeling that maybe Congress would take the matter out of the board's hands and do its own relaxing of Regulations W (autos and appliances) and X (housing).

Despite its brave words, the Fed took a step toward relaxation when it exempted from Regulation W items costing less than \$100. The board said that it had boosted the limit from \$50 only for operating efficiency. Recently, it gave the same reason for ending the 10% down payment required on residential improvement.

• **Survey**—Congress is pushing the Fed hard, because it feels itself being pushed by retailers. Just how widespread the retailer pressure has become is hard to say. A survey by BUSINESS WEEK reports this week brought mixed reaction. On Regulation X, a large majority of builders clamored for relaxation of down payments; they said the rules had cut sharply into the market for \$12,000-and-over houses.

Appliance dealers, on the other hand, were a long way from unanimous on what should be done about Regulation W. Only a few seemed to feel that down payment requirements were hurting business. A majority thought it would be nice if the time for payment were extended from its present 18 months, perhaps to 24 months.

Quite a few were happy with their own restrictions, but thought it might be good for business if down payments on houses were eased. That's because the big home payment strips a young couple's purse clean, leaves nothing for needed appliances.

Only automobile dealers (BW—Mar. 22, p. 28) almost unanimously pine for lighter restrictions.

• **Senate Group**—Whatever the real feelings of retailers in general, a lot of congressmen seem to think they are ravaging for easier restrictions.

The liberalization fight is being led by Sen. Homer Capehart and Sen. Blair Moody. Capehart (a former appliance manufacturer) is trying to get a cut in the 15% down payment required for appliances. Moody (from auto-making Michigan) hopes to prune the 33% down payment on cars.

• **No Guessing**—The Fed, meanwhile, is fearful it may be pushed, but certain

that it won't jump. The banker-minded board, supported by its instalment credit experts, wants no part of the easing process. It argues:

- It doesn't want to have to guess whether business is going up or down. Perhaps in six months it might try a guess; till then, it thinks prudence requires that the restrictions be retained.

- The Fed is convinced that money lenders share its views, that the clamor for easing is from retailers.

- It feels that it should be evident, perhaps in a few months, whether the danger of renewed consumer competition for a limited supply of autos is really over. Then would be the time to give business whatever stimulation might come from easier credit controls.



## On the Level . . .



## . . . It's Not Crashing

The nose-down helicopter (lower) is one of a fleet of six new antisubmarine craft (upper) delivered to the Navy by Piasecki Helicopter Corp. It's really flipping its tail for a speed test at Philadelphia as the company's chairman, Frank Piasecki (right), looks on.

# Building, Expansion Goals Set

More materials are on the way for most industrial and commercial building. But government aid for industrial plant and expansion hinges on defense goals.

The impact of the defense buildup on industrial and business expansion has about spent itself—barring any new, unforeseen metal shortage.

You can see that in the text, and between the lines, of Charles E. Wilson's final quarterly report as director of mobilization. The news is both good and bad for industry—but it's mostly good.

- **Bright Side**—On the plus side, copper and equipment are about the only materials strings still tied up in knots. Supplies of most other materials have improved so much that government controllers plan to lift almost all restrictions by the end of this year or early next year. Even structural steel, the big bottleneck for major construction to date, has loosened up considerably, with supply and demand steadily approaching a balance.

But copper, needed both for construction and equipping of most new plants, will remain too short this year to take all strings off industrial expansion. For this reason, some new plants that otherwise would go ahead this year without any form of government aid except materials allotments will be held up another six to nine months.

- **Not Quite So Bright**—On the other side of the picture, since most of the plant expansion needed is either under way or ready to go, there will be little more government assistance for additional industrial building, except where specific mobilization goals require it. This means the big federal incentives for industrial expansion—five-year tax amortization, government loans, and loan guarantees—will soon dry up.

The big exceptions, of course, are industries for which mobilization goals, outputwise, have been raised—notably electric power, petroleum, and chemicals. They will get financial or whatever other kind of government aid they need to hit the new targets. And mobilizers naturally will see that new plants to turn out weapons and supporting items, like steel and aluminum, get tooled up before any other.

- **Outlook . . .**—In general, here is how the men who helped Wilson put together his January-March report size up the several construction fields for the rest of this year:

- . . . **Plant Expansion**—The big defense programs—steel, aluminum, aircraft, and other weapons—are about half finished. Some of these plants won't get into operation until 1954, but most

of them will be getting equipment or finishing actual construction this year.

Increases in expansion goals for oil, electric power, and some chemicals mean more plant starts in those fields. Here are some of the new goals for capacity to be added:

- **Oil-well drilling.** 25,000 wells in the last half of 1952 and 55,000 in 1953.

- **Oil refineries.** Capacity to refine 750,000 bbl. a day, to be completed between July 1, 1952, and Jan. 1, 1954.

- **Electric power.** 32-million kw. to be added in the three years, 1952 to 1954.

- **Chemicals.** Mobilizers have upped earlier goals for sulfur and nitrogen and for a host of secondary chemicals. It adds up to continued expansion well beyond 1954.

A lot of other types of plants are included in the \$16.6-billion of expansion for which mobilizers have approved five-year amortization. But the fact remains, few plants not yet started and not included in the programs with new defense goals will qualify from here on out.

- **Deadline—Tipoff** came in Wilson's report on DPA's operations in the first quarter of this year.

DPA authorized some \$5-billion of plant and equipment for fast amortization. That cleaned up most of its backlog of projects already started. They just beat the Mar. 1 deadline, after which DPA refused to consider any application for plant already under way. From now on, the controllers will measure any projected construction against their goals for expansion of the type of facilities involved. And goals in most lines are already in sight.

- . . . **Commercial Building**—Because they require little or no machinery or structural copper, commercial structures stand to gain most from the easing of steel and other materials. A number of hitherto banned stores, gas stations, shopping centers, and the like will start getting CMP allotments July 1.

- . . . **Institutions**—Building restrictions have piled up a backlog of demand for schools, hospitals, churches, and public buildings. Washington has made more material available for this type of building in the April-June quarter, and expects to increase allotments again in the third and fourth quarters. On this basis, outlook now is that the backlog will be caught up by the end of this year.



**PEOPLE PREPARED** First step was to conserve family cash. Mrs. Joseph Vojtko

## Steel Seizure

"Buy an Easter suit now. Make the first payment 30 days after the strike."

That store-front poster epitomized business in Pittsburgh's steel valley this week, before the deadline for a nationwide steel strike. For all Washington's threats of seizure—to prevent a pro-



**THE UNION PREPARED** James J. Thomas, Director of District 15, made a last-minute check to be sure everything was ready. As boss of several local unions, he's responsible for many things, including . . .



**FOOD** for the workers. A union member installed water and gas lines for soup kitchen to be operated in Union Hall.





(left), wife of a steelworker, dispensed with the baby-sitter, took junior on a budget-stretching shopping tour of the supermarket. And most steelworkers decided that the weekly haircut was one



item that could be clipped—on Saturday afternoon the barbershops were empty. But the neighborhood bar apparently wasn't a luxury. Workers congregated there to let off steam.

## ame Too Late to Avoid Shutdown

longed walkout—the people who live in the steel valley were conserving their cash.

A main street barber snorted at the impossible reality of an empty barbershop on Saturday afternoon. A paint store proprietor, his shop deserted at the

start of what should be his busiest season, figured trade would pick up after two weeks of stoppage—"the wives will put the men to work by that time." Only a low-priced car dealer claimed business was good.

While steelworkers adjusted their

budgets and their union marshaled its forces, steel operating men had to prepare the plants for a shutdown that both sides predicted would be long. Layoffs—and production losses—began Monday in the Pittsburgh district.

(Turn to page 24.)



SCHEDULES for the picket captains. Union officials Peter Jackson (left) and Joe Evans checked list to be sure that all the gates would be covered, all shifts rotated.



POSTERS for the strikers. Dorothy Jacobs practiced a little frugality by cutting off the bottoms of posters used in 1949, when the issues were pensions and social insurance.



**MANAGEMENT** Hobart W. Seyler, general superintendent of U. S. Steel's Clairton Works gave the orders for the intricate process of shutting down.



**COKE** Oven temperatures have to be held at a minimum of 1,700F, no matter how long a shutdown lasts. If temperature fell below that, the ovens would be ruined.

## The Steel Plants Go Down, Start Up

### TRUMAN STRETCHES POWERS TO SEIZE MILLS, AVERT A STRIKE

It took the steel industry most of a day to make up its mind, but this week it swallowed hard and yielded to government seizure.

At midweek the odds were that steel production would be back in full swing by the weekend, that the country would have lost no more than 750,000 ingot tons of steel production—about a third of a week's output—as a result of the three-way deadlock among the steel industry, the steel union, and the White House.

• **Unprecedented**—President Truman broke the deadlock by an unprecedented exercise of Presidential power. There are plenty of precedents for seizure of strike-bound industries; as a matter of fact, this was the seventy-first such action since 1941.

But previous seizures have all been carried out under authority of one or another piece of emergency legislation—mostly the Selective Service Act or the Smith-Connally Act. This time, however, the President acted without reference to any specific law, simply asserted the inherent power of the President to safeguard the general welfare.

Truman's bold move passed its first test when a federal district court refused a steel-company request to enjoin the seizure immediately. There will be further litigation, but this week it looks as if Truman may have staked out a

whole new area of Presidential power.

• **Beginnings**—This week's legal tangle started, formally, last December, when negotiations began between the industry and the United Steelworkers, CIO, for a contract to replace one that expired Dec. 31.

Negotiations, conducted in the shadow of federal controls, got nowhere. Before yearend, the case had been certified to the Wage Stabilization Board. And the Steelworkers agreed to postpone their strike from Jan. 1 until WSB ruled.

When it came, late in March, WSB's recommended package stunned the industry, brought hasty acceptance by the union. It called for 17.5¢ in direct hourly wage raises—most of it retroactive to last Jan. 1, the remainder coming in two bites later this year. It called for fringe benefits that would add 5.4¢ per hour this year, 3.5¢ hourly next year to steel labor costs.

And the board recommended that a union shop—a burning issue for both parties—be attained through further bargaining. Steel operators sought a ruling from Washington on price increases to cover the WSB package costs. Daily, speculation shifted as to how good a price deal the industry could make for itself. In the end, with the industry's champion, mobilization chief Charles E. Wilson, the loser in a final fight for a sizable price increase,

the steel companies learned that they'd get only something like \$2.50 per ton. That's what Washington's price stabilizers figured the industry merited under the Caphart Amendment to the Defense Production Act.

It wasn't what the Administration thought they deserved. That, the President made plain, would have been no price increase at all.

Without the price relief they needed, steel makers would not accept the WSB package.

• **Hour by Hour**—On April 5, the Steelworkers issued a formal 96-hour notice of a shutdown at midnight Tuesday, April 8.

On Sunday the larger plants began banking furnaces. By Monday practically all the basic steel producers were preparing for a long strike.

A few plants were unaffected. Kaiser signed with the union. National Steel's Weirton (W. Va.) subsidiary, independently organized, worked right along, as did a portion of Armco's non-CIO production. Here and there, very small steel companies signed conditional agreements that freed them of shutdown threats. But by the time President Truman seized the plants April 8, the U.S. steel industry was shut down—tight.

• **In Washington**—Seizure, of course, had been in the cards for a week or (Continued on page 26.)





**IRON** was removed from furnace, replaced by coke. Then the tuyeres (blowholes) and the tap hole were plugged with fire clay. The charging bells were sealed. In effect, the blast

furnace becomes a huge thermos bottle that will hold its heat for as long as two months. When furnace is reopened, it takes about a week to get back in full-scale, top-quality production.



**STEEL** Rolling mill was deserted as the shutdown program reached a conclusion. Harry Innis, Clairton Rolling Mill superintendent, stands on the run-out table between the

hot beds of the 22-in. light structural mill. Rolling mill hands will be among the last called back after seizure. They'll have to wait until the furnaces start producing again.

more. But the President's unprecedented manner and methods had Washington in an uproar Wednesday. Guessing had been that Truman would use the Selective Service or Defense Production Acts to seize the mills. But the latter had been narrowly drawn—with a legislative history no court could ignore. And the draft act's seizure powers rested on a refusal to supply—something that couldn't be proved.

These difficulties brought the Administration back to the Constitution and the President's inherent powers to protect national welfare. You have to go back before World War II for any precedent at all. Then, President Roosevelt halted a shipment of arms consigned to a South American revolution. In a case entitled *U.S. vs. Curtiss-Wright Export Corp.*—which federal attorneys were citing this week—the Supreme Court upheld the President's move, cited a broad grant of Constitutional authority for a President conducting international relations.

Monday, while federal attorneys scoured the lawbooks for precedents, there was still debate as to which agency should operate the plants if seizure came about. This widely unwanted assignment went to Commerce Secretary Sawyer, the Cabinet's most business-minded member.

Sawyer was in Detroit—"fact-finding" again. A White House phone call brought him back to Washington, and Tuesday afternoon—with the strike one shift away—he and acting mobilizer Steelman visited the President. Their advice: Take your seizure to the public on radio and TV.

That was easy, for the President had already scheduled a speech that evening plugging his pet Point 4 program. With the seizure decision solid, he only needed some rugged language—which was in preparation right up to air time.

• **Figures**—When it came, the President's speech was tough—the best speech Phil Murray ever wrote, steel men quipped bitterly. It warned the home front of more inflation if steel price increases were granted. It predicted setbacks in Korea and in our armed strength everywhere if steel making stopped. In specific figures—using the "profits-before-taxes" theory on which the union had based its wage case—the Truman message lashed the steel makers for profiteering.

• **Wires**—The White House staff had to work out a special deal so that seizure documents could be moved over the strike-bound wires of Western Union. Steelman himself got on the strike-threatened wires of the Bell System Tuesday night to cover the last-minute negotiations still under way in New York. There, WSB Chairman Feinsinger sought to get the parties together. Steelman's words for Feinsinger

were brief: Close out the union-company discussions. We're moving the show to Washington.

Then Steelman called Phil Murray and called the industry leaders Feinsinger had assembled. They, too, were summoned to the Capitol. Murray knew in advance that seizure would come if an agreement didn't. He drove down from New York. The steel makers were less willing, finally agreed they'd be there or be represented. The meeting was for Wednesday afternoon.

• **Law-Seized**—and stinging from the switching Truman gave them—the industry reacted erratically:

• **Attorneys for Republic Steel and Youngstown Sheet & Tube** found U.S. District Judge Walter M. Bastian at his Washington home about 11 p.m. Tuesday. From him, they got a promise of a hearing 12 hours later on their plea for a temporary restraining order and an injunction pending court determination of the seizure issue.

• **U.S. Steel** says it notified local plant managements "before midnight" to get busy on reopening the plants.

• **Republic Steel officials in Cleveland**, in the absence of president Charles White, prepared a startling poster for their plant gates Wednesday morning. It started: We understand from press reports that the President has issued an executive order authorizing the Secretary of Commerce to seize and operate the plants of Republic Steel. It said the plant would not open pending clarification of the situation.

• **Bethlehem Steel** joined Republic and Youngstown in their court appeal.

• **Arguments**—When they got to court at 11:30 a.m., Wednesday—before Judge Alexander Holtzoff—the steel makers argued that the President was without power to seize. They contended also that their companies would be damaged irreparably under seizure. They were afraid, of course, that Sawyer would sign a contract incorporating the WSB package. (Interior Secretary J.A. Krug had done just that in 1946, when he O.K.'d a contract giving John Lewis' United Mineworkers a 5¢ welfare fund royalty and an 18.5¢ wage boost.) As a matter of fact, the White House had already decided that Sawyer should negotiate directly with the union if the companies failed to reach an agreement.

Judge Holtzoff chose not to stand in the way of renewed flood of steel production. At 3:15 p.m., Wednesday, he threw out the case. He said the President has the inherent power to seize. And if steel makers can prove injury, he added, they can sue for damages.

The first workmen—maintenance men, coke oven and blast furnace hands—were on their way back to work as Holtzoff announced his finding.

## Biggest V-Loan

Studebaker's \$100-million revolving fund tops defense credit program that's behind expectations.

The V-loan part of the rearmament program hit its peak last week, when Studebaker Corp. announced that it had set up a \$100-million revolving fund credit with 15 banks.

The money will be used for working capital in Studebaker's defense production—largely jet engines and military trucks. Chances are that Studebaker could have raised the money easily enough through ordinary bank sources, but this would have used up its regular lines of credit.

• **Drawn Down**—That the Studebaker V-loan is the biggest since Korea stresses the fact that the whole V-loan program is running well behind government expectations. So far, 934 of the loans have been authorized for a total of just over \$1.5-billion. Less than \$800-million of this has been actually drawn down by borrowers. Various reasons are advanced for the lag:

• **Defense procurement** is running behind the original schedule.

• **Many companies** were already in shape to do their own financing.

• **Fewer companies** than expected went in for all-out arms production. The civilian part of their output made it easier for the others to take on an arms sideline without straining their credit.

There's still another factor: Banks handling V-loan credit have to pay a percentage of their interest rate to the government in exchange for the federal guarantee. So far, the V-loans have averaged an 80% guarantee, with the banks ponying up an average 20% of interest.

• **Go It Alone**—The banks make this payment without gusto, and they well know that they can avoid it if they make ordinary loans. Hence, when any very good credit risks ask for money, the banks would rather take all the risk and keep all the interest themselves.

In World War II V-loans and advances against production were the government's two methods for rescuing production that was menaced by scarce credit. At that time, the two played about equal roles. Since Korea, the V-loans have greatly outstripped the advances, despite their own lag. That's because the advances now carry a 4% interest charge. In World War II they were interest free at first, later cost only 2½%.



## STEEL MINE

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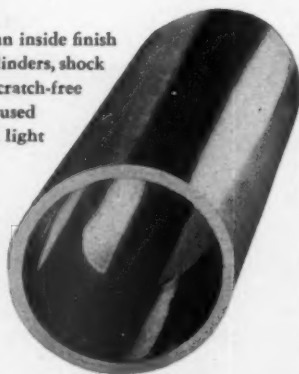
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## BUSINESS BRIEFS

A \$94-million payment by Dearborn Motors, Ford's agent for marketing farm equipment, this week settled a \$342-million suit brought by Harry Ferguson four years ago against Ford, Dearborn, and others (BW-Jan. 17'48, p25). Ford agreed to make some changes in controls of a pump on its tractor.

Denver's liquor bottle is coming down from the skyline. The spectacular advertising sign (BW-Apr. 5'52, p20) will be removed. Brown & Forman Distilleries announced this week, though the company insisted only a minority of Denverites was bothered by it.

Big jet engines will be built by Ford Motor Co. under license by Pratt & Whitney. They're J-57 axial-flow powerplants for the largest new bombers, Boeing's B-52 and Consolidated Vultee's B-60.

Another synthetic cortisone process (BW-Mar. 29'52, p22) is on the way. Monsanto Chemical Co. has applied for a certificate to build an \$18-million plant to mass-produce the drug. . . . Monsanto also announced that Kriolium, the wonder soil-conditioner (BW-Jan. 19'52, p107), will be made at existing facilities, for marketing in 1953.

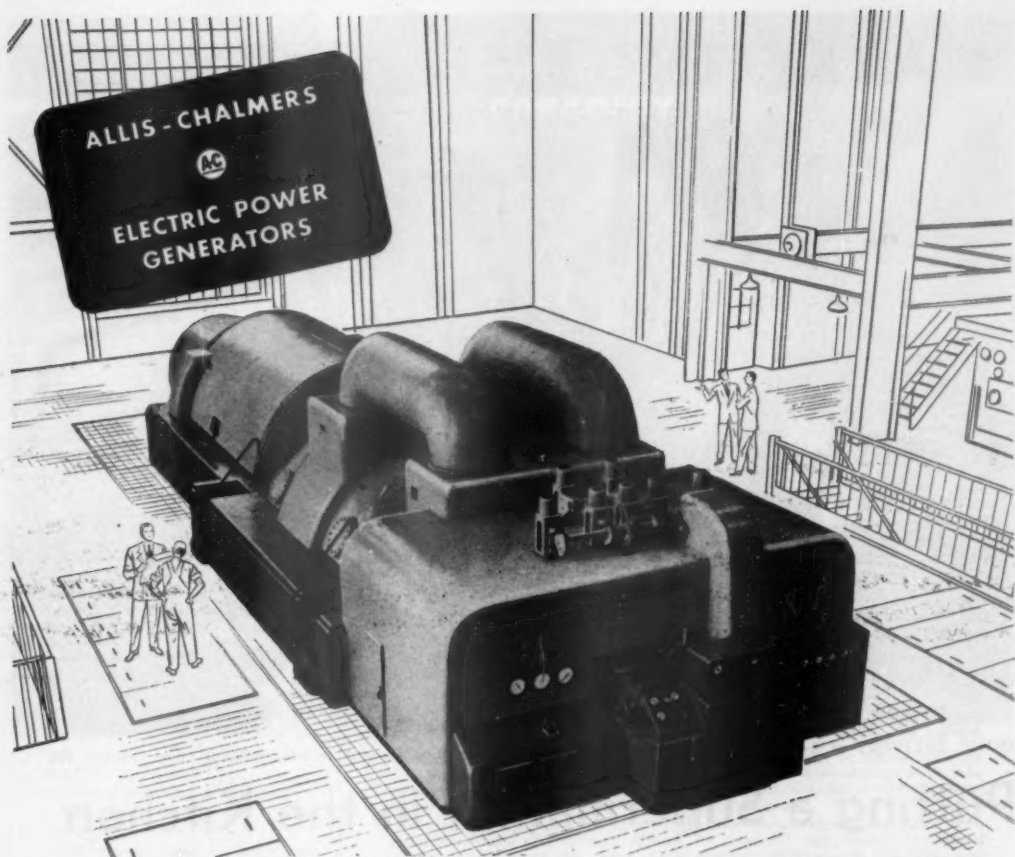
Expansion of the Ashtabula (Ohio) sodium plant of National Distillers Chemical Corp. was halted after \$4-million had already been spent. Reason: Procter & Gamble, a big customer, is using less sodium in making detergents.

Promoters of a Lake Erie-Ohio River rubber belt conveyer line are taking another shot at persuading the Ohio legislature to grant them the right of eminent domain, without which they can't line up their 103-mi. route. The legislature has turned them down in the last two sessions.

Two toothpaste makers, Amm-i-dent and Colgate-Palmolive-Peet, have filed suits challenging the right of the Rystan Co. of Mount Vernon, N. Y., to control use of chlorophyll compounds in dental hygiene products.

Foldups: Philadelphia-Camden ferries made their final runs last week after a history starting in 1688. Business had been dwindling since the Delaware River bridge opened in 1926. . . . In Baltimore, the Merchants & Miners Transportation Co. liquidated the last of its holdings just 24 days before it would have rounded out 100 years in Atlantic coastwise shipping.





## Wisconsin Power and Light Company Adds New High-Efficiency Unit— Helps Keep Electric Rates Low

**T**HIS Allis-Chalmers steam turbine-generator was put into service recently in Wisconsin's Edgewater plant at Sheboygan, Wis. and makes electricity for surrounding towns, factories and farms.

The generator is another Allis-Chalmers "first." It is the *first ever built* that employs a much improved application of "super-charged" hydrogen cooling.

This new development allows the gen-

erator to be smaller in size than is normal for 60,000 KW capacity and tends to reduce maintenance problems—all of which helps to keep electricity rates low.

This machine works alongside of two earlier-model Allis-Chalmers turbine-generators at this same station and delivers the same amount of electricity as the two put together—thus increasing electricity production for this area by 100%.

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## MARKETING



HOME DELIVERY of frozen foods at below-retail prices is new promotion gimmick to boost sales of home freezers. It's . . .

## Putting a Supermarket in the Kitchen

"Everyone except the used car dealer is selling home freezers. Everyone except the blacksmith is selling food for the freezers under some plan or other."

Thus a Salt Lake City appliance dealer sums up one of the hottest developments in food retailing today: the plan that lets a housewife who buys a home freezer buy food for it at below-retail price.

Depending on who you are, the scheme is (1) a dubious gimmick to sell freezers, or (2) a new method of food distribution—a device that bypasses the retailer and turns the family kitchen into a domesticated "supermarket."

• **General Plan**—It works like this: The housewife buys her freezer, pays the 15% down payment required by Regulation W. At the same time she gets a freezerful of frozen food, for which she may not have to make any down payment at all.

She pays off her freezer balance and her food bill in installments at a price-saving on the food that is supposed to offset the cost of the freezer during its 18-month financing period. Total

monthly payments generally run around \$55 to \$65. Under most plans, she can replenish her food stock in bulk—usually \$50 worth at a time—at bulk prices.

• **Variations**—There are innumerable versions. Sometimes an appliance dealer goes into frozen food wholesaling on his own to keep his freezer customers stocked. Sometimes a food processing plant gets franchises to distribute freezers. Sometimes an appliance dealer ties in with a food retailer.

Nobody knows how many such plans there are. But spot estimates show why the grocery and supermarket are worried.

In Los Angeles, where the plans have been operating a year or so, over 100 concerns are said to be riding the freezer-food bandwagon; one participant guesses the plans account for \$3-million to \$4-million in frozen food sales a month in Los Angeles county. In the New York area, where the plan is relatively new, one group says its plan accounted for \$2-million in food sales in 1951. In Salt Lake City, there are at least 18 plans in operation. Cleveland, where the idea is just catch-

ing on, has several. In Seattle, where the idea is only six weeks old, there are eight or 10; in Portland, Ore., there are four or five. One guess for San Francisco puts the number between 20 and 30. In Chicago, there are at least six.

New developments are popping every week. Thus this week, Freezer Owners Assn. of America, Inc., which is already set up in 20 eastern cities, opened up in Chicago. And every day comes a new attack or counterattack.

• **Wide-Open Field**—When you consider the potential market, the stakes look big. Freezer dealers are extremely hopeful of prospects. There are an estimated 3,000 home freezers in the Salt Lake City area now, for instance. Most dealers predict there'll be 15,000 in four months; sales are that good.

If the plans are extended—as some hope—to give long-standing owners of freezers the same food price breaks, the stakes are bigger yet. Electrical Merchandising, a McGraw-Hill publication, estimated that there were some 3.8-million home freezers installed as of the first of the year.

That's enough, says John Bess, of



Freezer Owners Assn. and a prime mover in the development, to take care of the entire frozen food output in 1952. Manufacturers' shipments of home freezers in 1951 were nearly 1.1-million units, a considerable jump from 1950's 890,000.

• **Two-Way Benefits**—To see just how the plan works, take a look at Freezer Owners Assn. This is a nonprofit organization, founded by John Bess, whose Valmart (New York) company distributes Amana freezers. On Apr. 1, the association had 20 freezer distributor members, one for each of the cities in which it operates; 40 frozen food distributor members representing Bess says, most of the popular brands; and between 16,000 and 17,000 consumer members. By the end of the year Bess expects to have the plan in 100 cities.

The frozen food distributors and freezer distributors pay a franchise fee of \$100 to \$500 to join the association; the food distributor also pays FOA 1/4 of 1% of their sales to FOA consumers. When the consumer buys a freezer from an FOA distributor, she gets a certificate of membership that entitles her to buy frozen food from FOA distributors at an average price 15% below retail (prices are fixed competitively with the going wholesale prices in the area each month). The housewife buys four months' supply at a time.

• **Pros**—Bess cites these advantages:

- The consumer gets the obvious price saving.

- The packer gains an entry into a household and a solid chance to establish his brand.

- The food distributor gains, Bess says, because he can make a bigger profit on deliveries direct to the kitchen; these deliveries are bigger than those to the average retail store.

- The freezer distributor gains from the word-of-mouth advertising of satisfied customers.

- Both distributors gain from the radio program of Carlton Fredericks, whose program extols the nutritional value of frozen foods, tells the audience where to get both freezer and foods.

• **Cons**—Critics of the plans have some violent objections—on two lines:

- (1) The rush to join the plans has resulted in misrepresentations and abuses on the part of some firms.

- (2) There is some doubt as to the feasibility and soundness of the plans, even when they are set up carefully.

Both the Better Business Bureau and the Office of Price Stabilization are working on point No. 1. Some plans claim food savings as high as 35% or more. Yet when the customer goes to buy the food, it isn't to be had at those

## Success stories of **CARBOLOY** CREATED-METALS



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permanent magnets to incorporate in a product and improve its design, lower its cost?

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In 1944, The Travelers undertook a thorough heating modernization program with two objectives—minimum fuel cost, comfort for all employees. This included a complete new boiler plant with four automatic oil-fired boilers and related equipment, improvements to the existing ventilating system, and a "Controlled-by-the-Weather" Webster Moderator System of Steam Heating.

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prices. Other complaints are that some deals constitute a forced tie-in sale.

The planners themselves recognize that these criticisms have some validity. To combat them, they have formed such organizations as Approved Freezer Food Plans Assn., in Los Angeles, which aim to prevent abuses.

But more basic questions arise under Point No. 2. Some food distributors argue that it isn't possible to make deliveries to homes for the same price as to stores. Handling frozen food is costly. If the housewife isn't home to receive her order, it can't be left on the back porch to melt. A trade observer feels that home delivery could be cheaper—but only if a distributor has a lot of customers in an area.

• **The Squeeze**—The food packers and distributors have another problem. They can't sell to individuals without running the risk of losing their business with retailers. Associated Food Dealers of Greater Chicago, for instance, met recently with distributors

of Birds Eye, Booth, Cedergreen, Honor, Libby, Pict-Sweet, and Snow Crop. The distributors, said association secretary Bromann, said they would continue to sell through the normal channels of trade and would not tie up with plans that appeared to bypass the retailers.

But far and away the most worried group is the food retailers. They are hunting for plans of their own.

ZCMI department store in Salt Lake City has its own plan. A customer buys a freezer for about \$450. With it she gets a six-month supply of food, valued at \$225, for about \$170. At the end of six months she can renew the plan.

Starting Apr. 1, United Ice Co., California-Nevada distributor of frozen foods, offered grocers a plan. Let the grocer take minimum cash orders of \$25 for assorted foods. United Ice will deliver the foods and bill the grocers at regular wholesale prices. The grocer will add 5% to the customer's bill.

## Cigarettes Try Out Pliofilm Wrapper

Brown & Williamson is experimenting with the idea of wrapping its Kools in Goodyear's Pliofilm.

Goodyear Tire & Rubber Co.'s Pliofilm has found a lot of diverse uses. Airplane engines were wrapped in it during the war for overseas shipment. It is widely used to package food and cosmetics. And now it is about to add one more product to the list—cigarettes—if everything works out.

Brown & Williamson Tobacco Co., maker of Kools, and Goodyear are experimenting with Pliofilm as an outer-wrapping for cigarette packages. Up to now, its only use in cigarettes has been as a wrapping around the whole carton; Benson & Hedges cartons have come this way for five years.

In Kentucky, packs of Pliofilm-wrapped Kools are being sold over the counter and in vending machines to see how customers and retailers will like them. Meanwhile, Goodyear is trying to find ways to improve the product and also to take all the bugs out of the packaging machinery.

• **Balance Sheet**—Pliofilm and cellophane each have their own advantages. Pliofilm stacks up like this:

• It's more moisture-proof than cellophane. That means, in the case of cigarettes, that it keeps them from drying out.

• It seals in odors and flavors. Here again, the advantage can work two ways: Flavors can't get out, and outside odors can't get in.

• It seals readily by heating. Cellophane, on the other hand, has to be glued.

Pliofilm's disadvantages—the kinks that Goodyear is trying to straighten out—are mainly these:

• Unlike cellophane, it has no grain. This means that, when you peel off the thin colored strip to open the cigarette pack, you don't get an even tear as with cellophane.

• Pliofilm tends to be slightly sticky, especially when it's exposed to heat. Users of the Kentucky vending machines complain that this makes the packs stick together and prevents them from moving through the machines properly.

• Pliofilm, at present, costs more than cellophane.

• Hardest nut to crack arises from state taxes, which mean that pennies have to be put under the wrappers when cigarettes are to be sold through vending machines. This is usually done by sliding a knife between the pack and the outer wrapper, dropping the coins down alongside the knife. This is an easy operation with cellophane, but Pliofilm is less flexible and often breaks.

• **What's Ahead**—None of the drawbacks of Pliofilm—except the ones having to do with vending machines—seems particularly bothersome. No smokers have yet complained, for example, of the uneven tear they get when they open a Pliofilm pack. For over-the-counter sales, at least, Goodyear and B&W people think Pliofilm may have a bright future.



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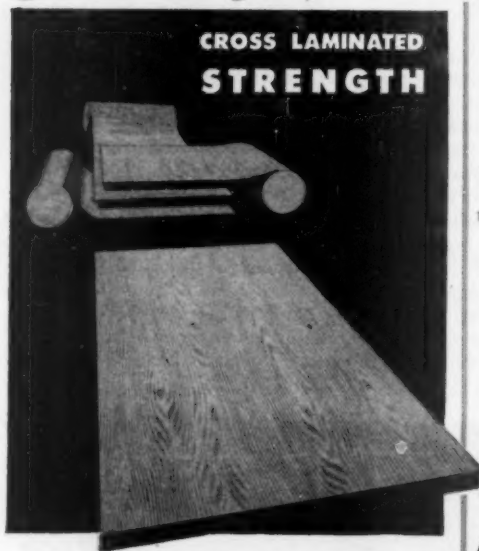
This is just one of the many SPEED NUT Savings Stories being reported every day in a wide variety

of industries. Take a second look at some of your assembly operations with an eye to keeping costs down and quality production UP; your Tinnerman representative is prepared to help. SPEED NUTS are the most economical fasteners ever developed—to prove the point, we'd like to make a comprehensive Fastening Analysis of your product line. In the meantime, write for your copy of SPEED NUT Savings Stories, TINNEMAN PRODUCTS, INC., Box 6688, Cleveland 1, Ohio. In Canada: Dominion Fasteners, Ltd., Hamilton. In Great Britain: Simmonds Aerocessories, Ltd., Treforest, Wales. In France: Aerocessoires Simmonds, S. A.—7 rue Henri Barbusse, Levallois (Seine) France.



The Gray Executive Model AUDIOGRAPH machine pictured here is one of a complete line of dictating and sound-writing equipment. Above, right, sketch shows how Index Strip Holder is attached with Push-On Type SPEED NUTS. 5 SPEED NUTS and studs replace 5 special threaded studs, 5 Bronze Lock Washers and 5 Brass Hex Nuts.

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3 Attractive Appearance



4 Large Panel Size



5 Tested Quality



6 Light Weight



## MARKETING BRIEFS

Four book companies—Houghton Mifflin; Little, Brown; Random House; and Simon & Schuster—agreed to a Federal Trade Commission order to stop "discriminatory" pricing on sales to wholesalers or jobbers. Charges against Doubleday and Harper are still pending. So are charges against all six that book clubs are given competitive advantages over retailers (BW—Jul.28'51, p47).

Night openings stirred up a protest meeting of employees of eight Philadelphia department stores, brought criticism from retailer Lion Clothing Co., of San Diego. Meanwhile, 15 downtown furniture stores in Charlotte, N. C., voted to stay open Friday evenings.

Nash-Kelvinator followed Westinghouse by increasing suggested retail prices of its refrigerators an average of 4% and its ranges an average 2%.

Parking headaches are getting the cooperative attention of the Ohio Council of Retail Merchants. It's issuing bulletins to show how retailers in various cities got together to share costs of new parking lots, set up meter systems, or other devices to make more space available to customers.

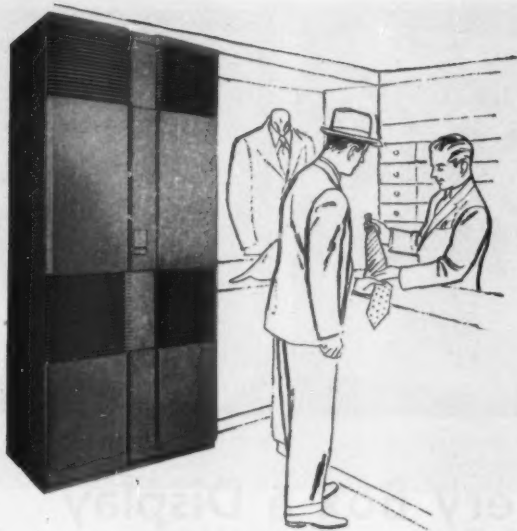
The "invoice legend" is one method used by fair trading companies since the Schwegmann decision to keep price cutters in line. The company's invoice contains a fair trade contract. But the New Jersey Superior Court says that this isn't the same as a signed contract, that it therefore doesn't bind merchants to hold to fair trade prices. Johnson & Johnson and McKesson & Robbins are appealing the case.

Rich's, Inc., big Atlanta retailer, reported greatest sales in its 85-year history in 1951: \$52.2-million. Higher costs and taxes, though, brought net profits down to \$1.7-million from 1950's \$2.2-million.

Safeway Stores also reported record sales of nearly \$1.5-billion, up 20% from 1950. But taxes, flood damage in Kansas City, and other charges shaved net profits to \$7.6-million from \$14.7-million.

Macy's income from retail operations fell with a crash in 1951, as predicted (BW—Mar.22'52,p32): \$5.7-million vs. \$14-million in 1950. Net sales of \$342-million were 2% ahead of 1950's net.





*Look ahead  
when you buy  
air conditioning*

Be sure that the air conditioning you select fits your plans for the future. The Carrier Weathermaker Air Conditioner is built for the years to come, designed to adapt itself to the changing needs of your business. If you decide to redecorate, the Weathermaker will keep your new colors bright. If you go to open-front displays, the Weathermaker will keep your stock fresh and attractive. The 1952 Weathermaker is so handsome you'll want it right out in plain sight. See these "look ahead" exclusives: Controlled Cooling, Even-flo air distribution, Humitrol, Whisper-quiet Q-T fan. Five sizes from 3 to 15 hp.—to fit any store. Call your Carrier dealer. He's listed in the Classified Telephone Directory.

**The beautiful new Carrier Weathermaker Air Conditioner —  
built by the people who know air conditioning best!**

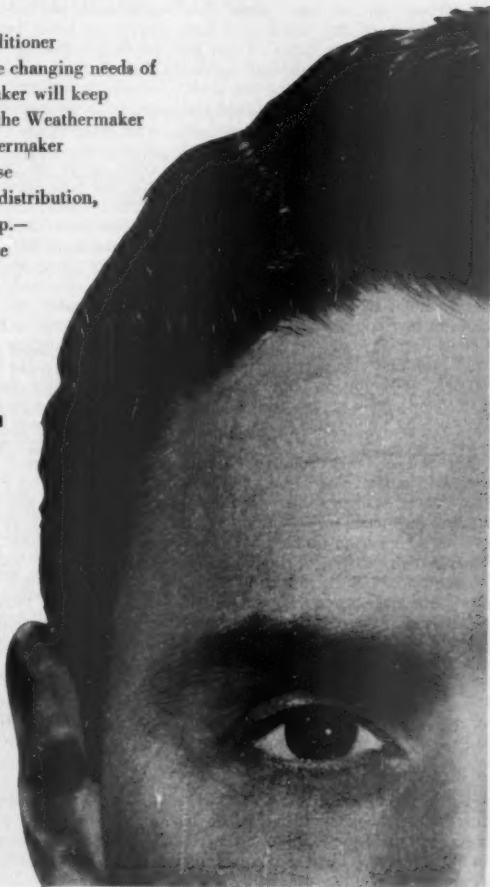
**Carrier**

AIR CONDITIONING • REFRIGERATION



**What to look for in a room air conditioner**

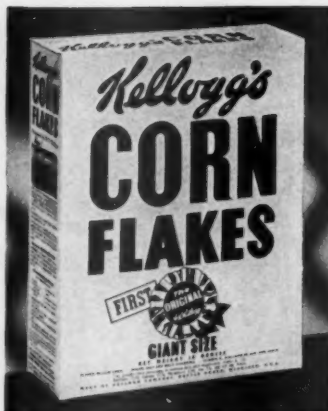
Look for more than cooling! Look for the 18 points that will get you a better buy. They're in the new Buyer's Guide. Your Carrier dealer has it. See it soon.



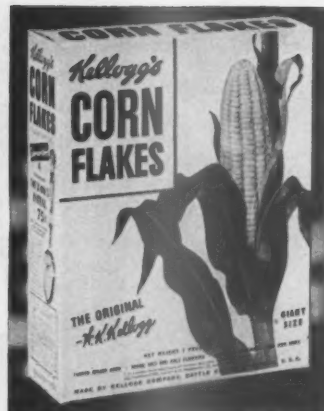




FROM THIS: 1906 box stresses name . . .



TO THIS: Name still holds spotlight . . .



NOW THIS: Appetite appeal points up . . .

## New Concept: Every Box a Display

A decade or so ago, when you bought a box of dry cereal, you first gave the grocer your order. Then he reached up with his grab-hook (cover) and took a box down off the top shelf. It might or might not be the brand you asked for, depending on what kind of salesman the grocer was and what cereal maker was offering the best deal that week.

All that has changed. In today's self-service supermarket, nobody stands between you and the goods. The dry cereal is kept at eye level, just a few feet away from the customer. All you have to do is to reach out and take a box—any box you want.

• **New Face**—These simple facts have had a profound effect on food retailing. Just how profound can be seen clearly in the new packaging unveiled officially this week by Kellogg Co., largest maker of dry cereals.

The Battle Creek company has redesigned its packaging across the board. The biggest change is the way Kellogg handles the name of the product. It used to be splashed in big bold letters across the whole front of the box. Now the name is relegated to a panel in the upper left-hand corner. The rest of the box front is devoted to bright, colorful pictures, plus some copy.

The main reason for the change is obvious: The box no longer has to be read 15 ft. away. But to understand fully why Kellogg has done what it has to its box, you must consider how self-service and the supermarket have changed food retailing.

• **Battleground Shifts**—There was a time when the competitive battle between brands at the retail level centered on floor space. Then a manufacturer would fight tooth and nail to get

grocers to put in his point-of-sale material, to build lavish pyramids of his product. But in the modern supermarket, these old, time-honored point-of-sale techniques are almost entirely gone. Supermarket operators use very little point-of-sale promotional material; many use absolutely no pyramids or other types of product displays that take up floor space.

As a result, today's competitive battle centers on shelf space. Food manufacturers fight hotly to get a few inches more of shelf space and to use that space as effectively as they can.

• **A Display in Itself**—This fundamental change underlies Kellogg's new packaging concept. Put in its simplest terms by W. H. Vanderploeg (cover), the company's president, the idea is "to make every package a display piece." The concept was originally evolved by one of Kellogg's two advertising agencies, Leo Burnett Co. Kellogg has come to look on its packages as if they were so many squares of white space in a magazine. "If you count each Kellogg package that goes through grocery store shelves," says Vanderploeg, "that's a circulation of upwards of half a billion a year—better than Life."

• **Free Circulation**—Kellogg intends to make the best use of this free circulation. It wants to give each impression an impact that will help sell the product. So, for example, in the case of Rice Krispies, Krumbles, and Bran Flakes, it tries to whip up "appetite appeal" by picturing each cereal on the front of the box in a bowl, topped with some kind of fruit. Equally important is the tie-in the new boxes create with the rest of Kellogg's advertising. For instance, it splashes its TV actors over its boxes. Guy Madison appears on the

front of some Sugar Corn Pops boxes, Andy Devine is on the front of others (both are in the Wild Bill Hickok television show).

• **A Far Piece**—Kellogg's new designs show how far the package has come in the past few years. Not long ago box designers were still afraid to go too far away from the past. They wanted to carry over as much as they could from the old design for fear people would no longer recognize their product. But Kellogg found out some interesting things on this score by making consumer tests. It discovered, for instance, that its famous old Corn Flakes trademark—the "Sweetheart of the Corn" slogan and picture—didn't have nearly so impressive a carryover from the past as it thought.

So Kellogg now looks on identification as a secondary consideration. In the case of the Corn Flakes box, it has switched to a big picture of an ear of corn.

• **Versatile**—What Kellogg has done in effect is loosen up the whole concept of package design. The box—all six sides—can now be changed at need to meet developments on the promotional front. Take the current Corn Flakes box. It contains: (1) a silverware offer on one side panel, (2) a recipe using Rice Krispies on the other, and (3) a prize-winning entry in the Junior Ad-makers contest by eight-year-old Malcolm Kovacs.

• **All the Tricks**—The Kellogg Corn Flakes package is really the culmination of years of aggressive retail promotion by the dry cereal industry, of contests, premium offers, and a hundred other gimmicks. Perhaps only soaps have been pushed harder and in more ways than RTE cereals—short for



## Some Common Fallacies About HIGH BLOOD PRESSURE

High blood pressure, or hypertension, is a major cause of heart disease in middle age and later years. Directly or indirectly, it claims the lives of about 200,000 of our citizens annually.

Yet, medical science can do much for people with high blood pressure. Doctors say, however, that certain false beliefs which many

people have about this condition sometimes make treatment more difficult. By replacing fallacies with facts, patients are helped to develop a calm mental outlook—an important factor in controlling hypertension.

Listed below are some of the common fallacies about high blood pressure, and some medical facts which may be reassuring.

### FALLACY #1

**That an increase in blood pressure is always a sign of trouble.** This is not true. In fact, everybody's blood pressure varies from time to time as a result of physical activity or emotional strain.

Such temporary rises are perfectly normal and are *not* a sign of trouble. However, if such rises occur frequently and are excessive, they may indicate a tendency toward hypertension.

It is always important to have the doctor determine whether blood pressure is *persistently* higher than it should be, and to search for the underlying **causes**.

### FALLACY #2

**That nothing can be done to control high blood pressure.** Far from it! Under living and working conditions specified by the doctor, high blood pressure may clear up in some cases before it has a chance to damage the heart and blood vessels.

In all cases, however, close and continued cooperation with the doctor in every phase of treatment is essential. This is why everyone—especially those who are *middle-aged or older*, those who have a *family history of hypertension*, or those who are *overweight*—should have periodic health examinations.

### FALLACY #3

**That high blood pressure demands restriction in all activity.** On the contrary, many people who have this condition continue to enjoy active, useful lives simply by following the doctor's advice.

Among measures which the doctor also may suggest to help lower blood pressure are: *practice moderation in every physical activity; avoid emotional extremes; keep weight normal; get plenty of rest; have frequent medical check-ups.*

By carefully observing these precautions, many people with high blood pressure can live long and nearly normal lives.

Among the agencies that are sponsoring studies on diseases of the heart and circulatory system is the Life Insurance Medical Research Fund. Today there is real hope that the research attack will provide increasingly effective weapons against these diseases.

Metropolitan Life  
Insurance Company  
(A MUTUAL COMPANY)

1 MADISON AVE., New York 10, N. Y.

Please send me a copy of your booklet, 552-S, "Your Heart."

Name

Street

City  State



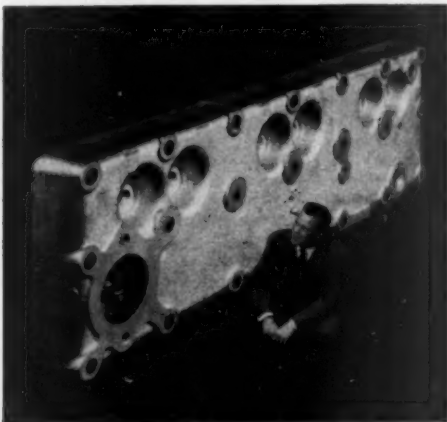
# Here's where CARBORUNDUM is going with "man-made minerals"



**ROCKET EXHAUST LINERS** are among the developments by CARBORUNDUM that take over where ordinary materials are inadequate to the task. Produced from "man-made minerals," this super refractory product is highly resistant to the extremes of abrasion and

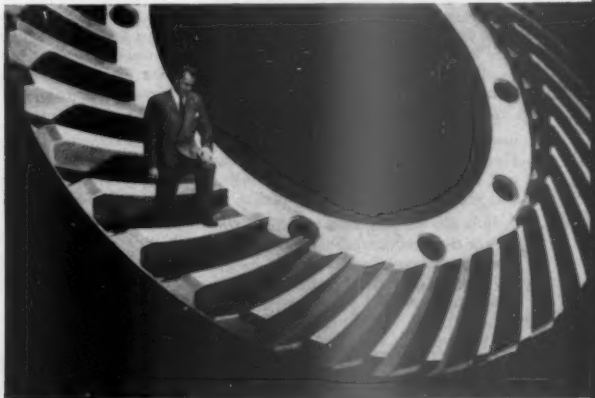
high temperature produced at the rocket nozzle. Super Refractories have been developed by CARBORUNDUM to increase output and reduce operating costs where high temperatures, resistance to abrasion, corrosion or erosion are important factors.

Made by the Refractories Division



**CASTINGS ARE IMPROVED** in machinability when FERROCARBO, a deoxidizer used in metallurgical processes, is added to the molten metal. This product by CARBORUNDUM is effective in producing the clean castings essential to today's unusual requirements.

Made by the Bonded Products and Grain Division



**POWDER METALLURGY** is a field of interesting new developments. These gears are produced by sintering powdered metal in furnaces equipped with GLOBAR silicon carbide electric heating elements. Having extremely high electrical resistance and no known melting point, the heating elements make it possible to attain high heats under accurate control.

Made by the GLOBAR Division



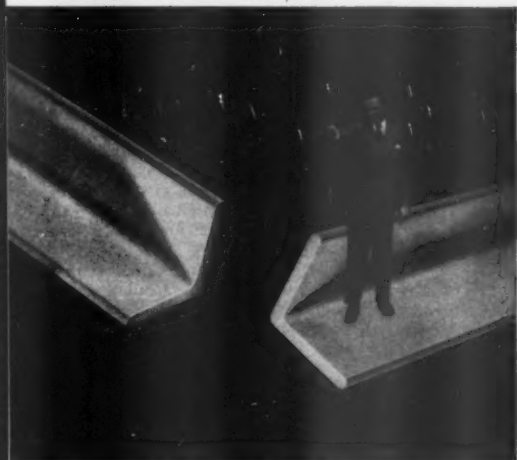
**ABRASIVE BELT LIFE WAS DOUBLED** in many applications following the recent introduction of our "61" serrated rubber contact wheel. With this wheel abrasive belts not only retain effective cutting action far longer; they also produce more uniform finishes and turn out more work at less cost.

Developed by the Coated Abrasives Division



**FURNITURE MAKERS** are now using the new extra-hard finishes for increased beauty and durability, aided by RED-I-CUT Waterproof Abrasive Paper developed by CARBORUNDUM. This tough new paper cuts faster, gives a better finish and, as an enthusiastic shop owner expressed it, "more mileage than anything we have ever used."

Produced by the Coated Abrasives Division



**SMOOTHER, FASTER CUTTING** is subject to unending investigation by CARBORUNDUM. In this field a unique combination of cotton fibres, selected abrasive grains and specially developed organic bonds is now used to produce "MX" abrasives in rigid form. These are exceptionally safe and fast in portable cut-off, deburring, general purpose grinding and similar work. They leave a smooth finish as they cut.

Made by the Bonded Products and Grain Division

Searing flame and erosive gases make life incredibly short for uncooled rocket blast tubes.

Problem without precedent: how to protect the tubes without using costly alloys. Experiment, testing and imaginative thinking resulted in a solution by CARBORUNDUM—molded super refractory liners. Molded, then baked, they must emerge from the oven with tolerances of which a machinist might be proud.

Problems without precedent are the kind we like. In fact our business was born with the invention of a material without precedent, the first "man-made mineral." This was silicon carbide, a product of the electric furnace, which has since become familiar the world over in products by CARBORUNDUM.

Working with characteristics that no mineral in nature offers economically in equal degree, or in the same combinations, CARBORUNDUM has made silicon carbide and aluminum oxide useful to industry in a great diversity of services. A few of these are illustrated here.

If they, or any of the newer forms and applications of "man-made minerals" now under development by CARBORUNDUM, call up possible new or more effective applications in your field, we invite your inquiry.

Look to

**CARBORUNDUM**

TRADE MARK

for the real news about  
"man-made minerals"

THE CARBORUNDUM COMPANY, NIAGARA FALLS, N. Y.

Products by CARBORUNDUM include Grinding and Cutting-Off Wheels, Discs and Sticks... Coated Abrasive Sheets and Belts... Waterproof Abrasive Paper... Abrasive Grain and Powders and other abrasive products... Electric Heating Elements and Ceramic Resistors... Grain and Briquettes for deoxidizing steel and iron... Super Refractory Bricks, Special Shapes and Cements... Porous Filter Media and Diffusers—and are marketed under the following trademarks: CARBORUNDUM • ALOXITE • MX • RED-I-CUT • GLOBAR • FERROCARBO CARBOFRAX • ALFRAX • MONOFRAX • MULLFRAX





## NEED LOTS OF DIFFERENT LOTS?

Variety of production need not run up your machining costs excessively. Versatility is a plus value built into every Acme-Gridley Automatic.

The faster production rates possible, plus ability to minimize non-productive time through quick change-overs and simplified operation, permit a wider variety of production on the same machine. You'll cut costs these four ways:

**SAVE MACHINE TIME** by combining cuts.

**SAVE EQUIPMENT** by eliminating second operation machines.

**SAVE FLOOR SPACE** and avoid added investment in brick and mortar.

**SAVE MANPOWER** by increasing over-all efficiency.

For more information on Acme-Gridley 4, 6 and 8 Spindle Bar Automatics, ask for catalog M-450.

No other source offers a line so complete—so much design and tooling experience in multiple and single spindle bar and chucking automatics—more than 45,000 machines built.



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NATIONAL ACME  
COMPANY**

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**ACME-GRIDLEY**  
BAR and CHUCKING AUTOMATICS  
built in 1, 4, 6 and 8 spindle styles,  
maintain accuracy at the highest  
spindle speeds and fastest feeds  
modern cutting tools can withstand.

ready-to-eat, an adjective the industry vastly prefers either to "dry" or "cold"

For this reason, you might expect to find a salesman at the head of Kellogg. It's true, the founder, Will K. Kellogg, who died last fall at the age of 91, was one of the great salesmen of the early 1900s. He developed a bagful of promotional tricks from the time he first started putting the famous signature, W. K. Kellogg, on the company's boxes.

• **Banker-Seller**—But his successor, Watson H. Vanderploeg (pronounced vander-ploo), is not a salesman. He's a banker.

He was born in Marion County, Iowa, in 1888, started his professional career as a bank clerk in the town of Pella in 1906. He made steady, solid progress through a cashier's job in Pella to that of vice-president of the Harris Trust & Savings Bank in Chicago. It was here he made connection with the Kellogg company. The bank was a trustee of the W. K. Kellogg Foundation Trust, which owns 2.2-million shares, or 50.2%, of the dry cereal company.

• **Caught on Quick**—When W. K. Kellogg went into semi-retirement in 1939, Vanderploeg took over as president. Banker or not, he has been credited with doing a bang-up job by the trade. The proof lies in the sales figures: In 1942, two years after Vanderploeg arrived, sales totaled \$41.4-million; last year they were \$106-million for the first nine months. Today, according to trade sources, Kellogg has about 35% of the dry cereal market, General Foods (Post division) about 25%, General Mills about 19%.

Kellogg has done considerable postwar expansion, costing the company about some \$23-million. In three years it has added four plants: in South Africa; Mexico; Lockport, Ill.; and San Leandro, Cal. The California plant will open June 1 and will produce about 10% of Kellogg's national output. All told, Kellogg now has nine plants here and abroad.

Kellogg has also introduced several new postwar products, including Corn Soya and Sugar Corn Pops; the latter is Kellogg's answer to the "presweetened" cereals like Post's highly successful Sugar Crisp.

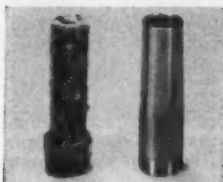
Here is a vivid illustration of why makers of ready-to-eat cereals can never relax.

It's a fast-moving field. Post's introduction of Sugar Crisp a couple of years ago was mainly responsible, observers think, for increasing that company's share of the total RTE market from 19% to 25%. The trade is now watching closely to see what Kellogg's new boxes will do to Kellogg's sales—and what the competition will do about that.

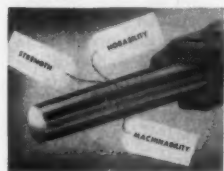




## DISCOVERED: how to fill a parts bin faster with present machinery



**A new "baby" fights sulphuric acid:**  
A few years ago industry indicated the need for a new stainless steel, to resist sulphuric acid, that could be produced in bar, strip, tube and other forms. **A-E-Service** came up with the answer: Stainless No. 20. Once again, Carpenter customers were first to cash-in on new, improved Stainless products.



The first "3-in-1" packages:

To speed moldmaking and improve molding results, the plastic industry had long sought a mold steel that combined all 3: Easy hobbing, good machinability, high strength. **A-E-Service** worked again for Carpenter customers—came up with Samson Extra, the first of its kind.

Yours may be one of the plants that is finding ways to produce more from present machinery, through Carpenter's Application Engineering Service.

**A-E-Service** is Carpenter's way of helping its customers apply specialty steels to squeeze maximum output from existing facilities. And in the process, it goes further to simplify production methods, lower break-even points, and increase a product's worth. Actually, there's no "mystery" to the way **A-E-Service** works. It works because it packs more imagination and sweat into every application it tackles. That's why the Carpenter man digs for facts on each job . . . studies previous records . . . "lives" with the appli-

cation 'til it's a success. He's after all the data he can get to apply the one steel best fitted to perform better.

This may require the talents of many men. If so, the Carpenter man calls in a field engineer, or draws on the added experience of his teammates in the Mill laboratory. And if trends in industry indicate the need for a new steel, that's a job for **A-E-Service**, too. In fact, Carpenter customers often pace their fields with dramatically new or improved products that stem from steels born in Carpenter laboratories.

**A-E-Service** is all this. And it is *continuing* to grow in value for those it serves.



**keeps you  
ahead of competition**

THE CARPENTER STEEL COMPANY • READING, PA.  
*Pioneers in improved Tool, Alloy and Stainless Steels through continuing research*

# MANAGEMENT

## Are You Happy About Your Own Corporate Setup?

Maybe you'll be less sure after you read what others have to say...

"We have created more or less of a totalitarian organization in industry, particularly large industry."

Gen. Robert E. Wood  
Sears, Roebuck & Co.

"The greatest contribution to effective organization would be the reduction of our plants to a maximum size of 2,500 men."

Young president of big U.S. company

"Uniformity of company practices may give way to national irrationality."

Ernest Dale

American Management Association

## Business Probes Its Own Structure

Organizational setups are holding top place in the thinking of more and more corporations these days. There's change in the air, too. You get a glimpse of that in the quotes above.

They are taken from a coming publication of the American Management Assn., *Planning and Developing the Company Organization Structure* (\$3.00 for members, \$4.50 for non-members). Ernest Dale, an assistant professor of industrial relations at Columbia University, put the results together, after a two-year digging job as an AMA research associate into the whole problem of organization. Publication is set for Apr. 25.

• **Timely**—The book concentrates on how top management is handling organizational problems today, and what changes are taking place. Dale's book is well timed:

• There has already been a good deal of management reorganization since the war, even in half-billion and billion-dollar companies.

• Revamping is likely to increase. Companies that have lived under one setup for a long time find themselves in a straitjacket when they grow.

• A lot of top management men are finding that traditional corporate authoritarianism is unrealistic. It either gets fouled up in corporate red tape, or causes a perceptible loss of initiative at lower management levels.

Of course, reorganization of a company usually comes with a change of

president. But the new chief executive is often just the spark that ignites the larger change. Dale thinks one reason for these reshuffles may be that in the past organization experts paid no attention to personalities. As a result, when personalities were moved about, the whole organization automatically had to be changed, too.

Dale and the AMA staff talked with 40 big and small companies. They picked ones that have made a conscious attempt to study organization objectively and scientifically. Approximately 150 other companies were spot-checked on specific questions.

### I. Trends in Organization

The AMA project emphasizes these trends:

• Organization thinking has undergone change. From the concept of the engineer—with his charts, lines of authority, rigid definitions, and functional separation of duties—management is moving toward a broader social outlook. There's greater emphasis on people, less on jamming people into boxes on a chart.

• There is a definite movement toward group decision-making, and away from one-man rule.

• Decentralization of authority is probably the goal of most organization changes. But there still is a long way to go. Many companies that ostensibly

lift ceilings on lower-echelon authority actually keep a tight lid on even minor decisions.

Out of all this, says Dale, a new general theory on organization ought to emerge. So far, though, too little is known about how to measure effectiveness in organization; how to apply social science studies to management; what the processes of decision-making are; whether new objectives—other than dollars and cents—need to be established.

### II. Staff vs. Line

Arguments for a new approach to corporation organization can be found in some of the problems that AMA found were bothering businessmen. Just about tops among these problems was the serious conflict between staff men and line or operating officers in many companies. The staff specialist takes too much authority; the line ignores what may be good counsel.

One solution is concurrent authority: A line officer can reject staff suggestions, but must get staff approval if he initiates action of a general nature. Staff men often have the edge on line officers in usurping authority because they are more articulate, technically more competent, have a higher company status, or can use sanctions by getting the ear of superiors.

In the corporation of the future, that

# Danskammer



"*De Duyfels Dans Kammer!*" cried one of Henry Hudson's crew as the little Half Moon rounded a bend in the river and approached a large, flat rock on which a band of Indians were holding a ceremonial war dance around a huge fire. It must, indeed, have seemed a "Devil's Dance Chamber"... and it is still called that today ... Danskammer.

Last December flames flared again at the Devil's Dance Chamber when a large C-E Boiler was lighted off at the new Danskammer Point power plant of the Central Hudson Gas & Electric Corporation. If Henry Hudson's crew could have looked in on that scene, what a fire they would have witnessed—masses of flames, at temperatures as high as 3000° F., spiralling up through a furnace more than seven stories high.

The starting up of Danskammer was an event of special significance to Combustion Engineering—Superheater because it marked the completion of the Company's 1951 work in so far as new utility power stations were concerned. It was the last of nine new stations equipped with C-E Boilers to go into service during the year. The aggregate capacity of these stations, if used only for residential service, would meet the needs of more than fifteen million people. And this is only part of the story, for many more C-E Boilers were installed in 1951 in existing utility stations than in new plants.

C-E Boilers, reflecting the high standards required by modern utility practice, are also available in types and sizes suitable for virtually all heating and industrial requirements.

## New Power Stations, C-E Equipped, placed in service in 1951

Titus Station, Metropolitan Edison Company  
Lee Station, Duke Power Company  
Contra Costa Steam Plant, Pacific Gas and Electric Company  
Hawthorn Station,  
Kansas City Power & Light Company  
Ninemile Point Station,  
Louisiana Power & Light Company  
Edge Moor Station,  
Delaware Power & Light Company  
Palatka Station,  
Florida Power & Light Company  
Johnsonville Station,  
Tennessee Valley Authority  
Danskammer Point Station,  
Central Hudson Gas & Electric Corporation

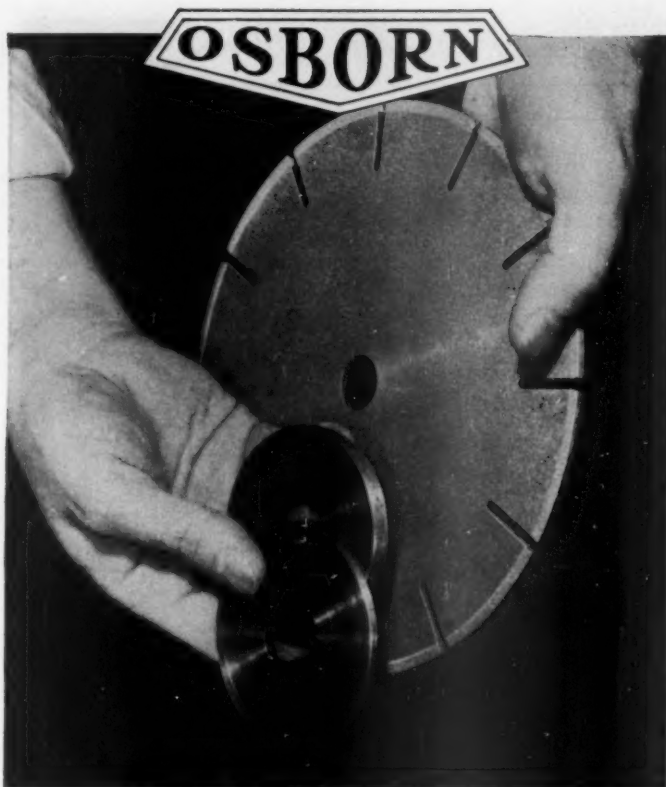
B-554

ALL TYPES OF STEAM GENERATING, FUEL BURNING AND RELATED EQUIPMENT



## COMBUSTION ENGINEERING—SUPERHEATER, INC.

Combustion Engineering Building • 200 Madison Avenue, New York 16, N. Y.




## Diamond-saving idea makes them do 80% more work!

*Longer life* and faster production from critically scarce industrial diamonds are being obtained by this method of dressing diamond wheels:

When wheels become grooved and out of square, true them by grinding, two at a time. After truing, mount wheels together in grinder and dress with counter-rotating 8-inch Osborn wire brush. This brushing removes some brass matrix, exposing the diamonds. One plant reports that this increases the wheel's cutting action 80%.

This is typical of many production aids available through your Osborn Brushing Analyst. Call him today or write *The Osborn Manufacturing Company*, Dept. 671, 5401 Hamilton Avenue, Cleveland 14, Ohio.

**Osborn Brushes** 

OSBORN POWER, MAINTENANCE AND PAINT BRUSHES AND FOUNDRY MOLDING MACHINES

**"... Too narrow supervision can be the cause ..."**

BUSINESS THINKING starts on p. 42

may be changed. A much more complete break from headquarters authority over operations seems to be the trend.

### III. The Load at the Top

Management men often complained of the burden of the chief executive. Too narrow supervision can be the cause of that. But without losing over-all control, a company president can delegate authority, cut out some layers of management, and thus open up communications—minus the daily grind of watching details.

AMA found out that some top management wasn't using staff assistants enough. These are men who act as an extension of the boss' personality without authority of their own.

### IV. Committee Management

As companies get bigger, it is almost certain that committees will play a bigger role, again lightening top management's burden. Most companies already have some kind of group thinking, whether formal or not.

In some companies—General Motors and Lukens Steel Co. are examples—group action is highly systematized. The latter has a general management group of top operating officers, who meet every Monday morning. Brief minutes are taken, routed to participants afterwards. Decisions are subject to veto by the president, who doesn't serve on the committee.

There are pitfalls in committee management, though. One big one: If the meetings are used merely to satisfy the ego of the top man, they are useless. Besides that, group action is an art that many management men have yet to learn. (Standard Oil of New Jersey, for one, trains its people in the art.) Finally, committees can't be effective in all areas. They are best in jurisdiction, setting objectives, clarifying new ideas; they are least effective on organization, leadership, execution.

An even more basic criticism of the committee idea: Substantial agreement is needed, but if everyone agrees, why meet?

### V. Little Ones Out of Big Ones

Decentralization is the biggest single factor in what is going on in management. It's not a new idea, but it hasn't had widespread acceptance even among large companies.

General Motors has been decentral-

# NEW CHRYSLER AIR RAID SIREN

## Produces Loudest Sound for Defense Warning Systems

The Chrysler Air Raid Siren produces 138 decibels of sound 100 feet from the throat. It has a range of 8 miles. *It produces the loudest warning sound ever perfected for modern production.*

The Chrysler Siren is *independent* of vulnerable central power systems as it is powered by the new Chrysler 180 horsepower V-8 engine. This same power rotates the unit 360° every minute.

The Chrysler Air Raid Siren is now being installed in many principal cities throughout the coun-

try because it is the loudest, most foolproof, most economical warning siren on the market. (One city saved \$100,000 by installing Chrysler Sirens.)

For complete information, specifications and availability for your city, town or industrial plant write: **Marine and Industrial Engine Division, Chrysler Corporation, 12200 E. Jefferson Ave., Detroit 31, Michigan.**

# CHRYSLER

INDUSTRIAL ENGINES

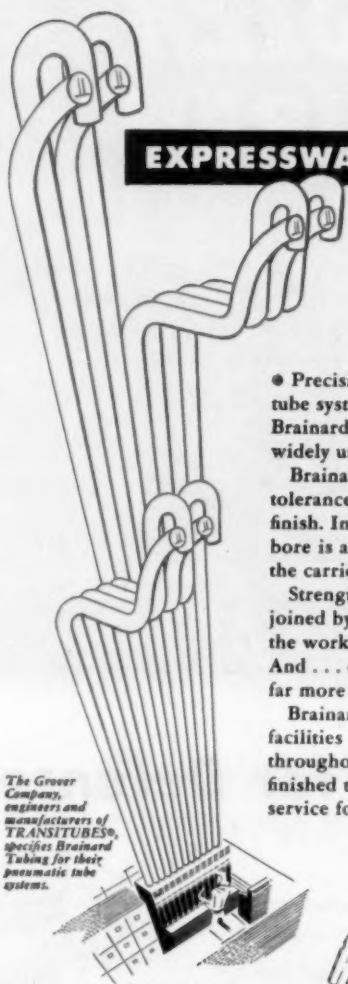


### Assures Correct Layout for Your Warning System

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## another job for **Brainard** TUBING



### EXPRESSWAY FOR HOT MAIL

• Precision is important in pneumatic tube systems . . . a big reason why Brainard Electric-welded Tubing is so widely used for this application.

Brainard Tubing is produced to close tolerances, with a smooth inside finish. In straight or bent sections, the bore is a smooth expressway for the carrier cylinders.

Strength is uniform. Sections can be joined by a variety of methods, simplifying the work of both designer and fabricator. And . . . electric-welded tubing is far more economical than other types.

Brainard's integrated production facilities assure quality control throughout manufacture . . . from ore to finished tubing. Depend on Brainard service for your needs.

*The Grover Company, engineers and manufacturers of TRANSITUBES, specifies Brainard Tubing for their pneumatic tube system.*



### EASY TO FABRICATE

Brainard tubing is a uniform product made to close tolerances. Has good machining qualities and finish can be supplied as specified. Easily fabricated—can be beaded, expanded, swaged, spun, flanged, upset, grooved, fluted, flattened, tapered, and otherwise formed. Supplied straight or fabricated, sizes 1/8" to 4" O.D.; .025 to .180 gage.

Fast delivery on certain sizes. For further information or catalog, write Brainard Steel Division, Dept. P-4, Griswold Street, Warren, Ohio.



WARREN, OHIO

### DISTRICT SALES OFFICES:

ATLANTA BALTIMORE BUFFALO CHICAGO CINCINNATI CLEVELAND  
COLUMBUS DAYTON DETROIT DES MOINES DULUTH GRAND RAPIDS  
INDIANAPOLIS MILWAUKEE MINNEAPOLIS NEW YORK PHILADELPHIA  
PITTSBURGH ROCHESTER SAN FRANCISCO SYRACUSE TOLEDO

**" . . . an umbrella of mass research, financing, and the like . . . "**

**BUSINESS THINKING** starts on p. 42

ized for 30 years. But GM was by nature a loose federation of separate companies. This happenstance has evolved into a clear-cut policy.

Decentralization of GM's decision-making starts right at the top, where there's a raft of committees. Staff headquarters acts chiefly as an adviser to line officers.

Broad authority—on manufacturing processes and methods, hiring and training, sales, organization—is given to division managers. Over them are group vice-presidents. Above them are two operating executive vice-presidents, one for the automotive and parts division and the other for the remaining operating units.

Divisions have to submit monthly income and balance sheets. They must show results based on a comparison with other divisions, profits on sales, sales as a percent of the market, and profits on invested capital. Each, in effect, becomes a small business.

GM divisional authority is limited in these areas: capital expenditures, price ranges on cars, salaries above certain points, bonuses, and union contracts. Divisions can reject staff headquarters services. On organization, divisions do not have to follow manuals.

In effect, GM's top management wants to know the results of its broad policies. It isn't much concerned with how the results are achieved.

• **Marching On**—The AMA lists other companies that either have reached the GM scale of decentralization, or are heading there. Johnson & Johnson is one; Sears, Roebuck is another. Indeed, some top businessmen want to break down their organizations even further than GM (BW-Apr. 5'52, p86).

Dale's conclusion is that out of all the ferment in organization thinking will come the corporation of the future. By 1975 big corporations may become merely management advisory bodies—with an umbrella of mass research, financing, and the like—for small, almost autonomous units. Initiative will revert to the small manager, instead of to a hydra-headed bureaucracy.

Specialization and companywide standard practices will cease to be the fetish that scientific management made them. Efficiency may take on a much broader meaning. Instead of being tested by the single measure of maximum profits for owners, it will be measured by "fair" returns for owners, managers, labor, and the community.

## Here's a profit-sharing trust plan (recommended by Industrial Relations Counselors, Inc.) based on:

- ➡ A contribution of 5% of earnings by employee.
- ➡ A contribution of 3% of earnings before taxes by company (for the purposes of the table, that amounts to \$281,000 each year)
- ➡ A 5-year employment requirement before participation (putting 800 employees in the group for purposes of this table)

If You Make This Much ...	... And Participate in The Plan This Long ...	... Your Trust Share Amounts to This:
\$5,000	10 Years	\$6,270
	15	10,625
	20	16,090
	30	31,700
\$10,000	10	12,540
	15	21,250
	20	32,180
	30	63,400
\$20,000	10	25,080
	15	42,500
	20	64,360
	30	126,800
\$30,000	10	37,620
	15	63,750
	20	96,540
	30	190,200
\$60,000	10	75,240
	15	127,500
	20	193,090
	30	380,400
\$100,000	10	125,400
	15	212,500
	20	321,800
	30	634,000

These figures assume:

- 1 — no change in salary
- 2 — fund invested in stock yielding 5% without appreciation or depreciation
- 3 — no withdrawals from fund or forfeitures
- 4 — capital gains tax of 25%

BUSINESS WEEK

## They Like Profit-Sharing

Profit-sharing for both bosses and employees could eventually become standard practice in industry if present trends continue.

The idea recently got a big boost from Industrial Relations Counselors, Inc., New York. Under the profit-sharing trust scheme (table), both the employee and company pay into a trust that in turn buys securities. Usually, a large part of the trust's holdings are in the company's own stock. The payout comes at retirement or separation.

• **Catching On**—IRC cites 14 big companies that have some sort of plan tied to profits as a means of (1) supplementing retirement pensions or (2) boosting

incentives for both management and rank-and-file.

The list of profit-sharing companies is likely to grow for a couple of reasons:

• Taxes are taking such a big bite out of wages and salaries that observers think some form of additional incentive pay is needed. Special tax treatment for profit-sharing trusts was authorized by Congress last year. Now any gain in the value of stock purchased under a profit-sharing trust isn't taxable until the employee who gets the stock sells it. If he never sells it, his estate pays only the ordinary estate taxes (BW—Dec.15'51,p25).

• Inflation has watered down a

lot of pension loans, so something additional is needed. Many companies are turning to the trust idea, not only as an incentive but as an inflation-proof retirement plan.

• Since the tax law was changed in 1950, stock options for key executives have become popular. Usually, these options apply to only a handful of management—a situation that can create resentment lower down in the ranks. Adding a profit-sharing plan could make stock options a lot more palatable to others in management and to the rank-and-file.

IRC, in fact, goes so far as to suggest that companies would be wise to stay away from stock options entirely.

• **Advantages**—The profit-sharing trust scheme overcomes some of the objections to straight-out bonuses or employee stock purchase plans. A straight bonus often becomes entrenched in the wage or salary expected by the employee: if he doesn't get any, he's irked. Besides that, taxes can eat away any sizable bonus.

Stock purchase plans have been under a cloud since depression days, when many employees saw their equity wiped out. Under the trust plan, stocks would have to fall as much as 50% or more before the employee's own money is touched by a drop in prices.

• **Earning Power**—There's another good dollars-and-cents argument in favor of the profit-sharing trust as against a stock option plan.

Take the case of a \$60,000-a-year executive. Under the stock option scheme, he may get the right to buy 1,000 shares of ABC Co. stock at \$30 a share, slightly under the market price. If he wanted to net, say, \$45,000 on the deal, he would have to wait until the stock climbed 45 points. At that point, he would fork out \$30,000 of his own money (the option price), get in return stock worth \$75,000. On the gain, he'll pay a capital gains tax of only 26%. The scheme looks appealing, since he needn't exercise his option until the price is right. But he can't be certain the stock will climb, and after taxes his net shrinks to about \$30,000.

On the other hand, under a typical profit-sharing trust plan described by IRC, the executive could net \$45,000 (after taxes) in 10 years. He'd have to set aside \$3,000 a year, and his company would pay into the trust 3% of earnings (based on the figures used by IRC's example). That \$45,000 would be his without any increase in stock prices. Any gain in stock value—even just a fraction of the 45-point gain needed to net \$45,000 from an option deal—would boost the value of his share by a sizable amount.

Most important, the profit-sharing trust system has a certainty about it that doesn't go with a stock option.

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sets *Another* NEW TREND



THE VORNADO  
AIR CONDITIONER  
MODEL 75WAC

## *Twin Air Directors give MORE Cooling Comfort!*

The new Vornado Air Conditioner sets a new trend in both styling and design. Modern styling lends an air of distinction and the Twin Air Directors create more cooling comfort in any room.

Dependable service is yours too—with either air circulators or air conditioners because you always buy "quality" when you buy Vornado.

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THE O. A. SUTTON CORPORATION  
P. O. BOX 1894G • WICHITA 1, KANSAS



J. B. HALL, Kroger Co. president, likes . . .

## Making Friends

Grocery chain spends \$100,000 a year on community relations—even in states where it doesn't do business.

There's nothing altruistic about most companies' community relations programs. Management men look upon them as they do public relations and intracompany personnel work. The payoff is a stable, happy business environment.

Kroger Co., Cincinnati grocery chain, has taken the idea a lot further. Instead of confining its program to the 19 states where Kroger stores are located, the company spreads its activity to all 48 states, plus Alaska and the District of Columbia. For two years Kroger has sponsored community development projects through the General Federation of Women's Clubs.

• **Contest**—Next month the company will pay out a top prize of \$10,000 to the women's club that did the best job in the 1951 contest.

The national winner will be announced at the GFWC convention in Minneapolis on May 13. Winners in each state have already been picked. Altogether, Kroger gives away \$25,000.

Total cost to the company of running the contests is \$100,000 a year. Aside from underwriting the program, Kroger keeps hands off.

• **The Theory**—Joseph B. Hall, Kroger president, admits it seems odd for a company to spend \$100,000 mostly in areas where it doesn't operate. But he thinks it is up to management to look beyond its own territory in stimulating participation in community affairs.

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**OF FAST, ECONOMICAL CONSTRUCTION WITH WALL PANELS OF**

# U·S·S 17 Stainless Steel

**(Available without CMP tickets)**

- If you are planning construction of any type of manufacturing, service or storage building, it will pay you to get acquainted with U·S·S 17 Stainless Steel as a building material.

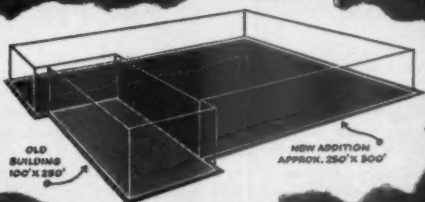
Formed panels of this grade of Stainless Steel can be used now to give you quickly-erected, durable, low-cost structures, and can be secured without CMP tickets.

Stainless Steel panels, insulated or non-insulated, are strong, light, corrosion-resistant. They can be applied under all weather conditions quickly and easily.

From the standpoint of original cost, Stainless Steel compares favorably with masonry construction. Long life and low maintenance charges make the cost-per-year of Stainless construction far less than that of other metal materials, even though the original cost may be slightly higher.

Get the full story on construction with U·S·S 17 Stainless Steel and the types of buildings on which it is being used by mailing the coupon for our booklet. If you like, we'll have panel manufacturers send you additional information on their particular type of construction.

**THIS PLANT** of the E. F. Hauserman Company in Cleveland is built with panels of U·S·S Stainless Steel. The diagram shows how the original building was enlarged several times its size. Panels off the original structure, along with new ones, were used to enclose the addition.



United States Steel Company  
Room 2802L, 525 William Penn Place, Pittsburgh 30, Pa.

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☐ Please arrange to have your customers send me literature on their particular type of Stainless Steel roof and wall panels.

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UNITED STATES STEEL EXPORT COMPANY, NEW YORK



UNITED STATES STEEL



# CANADA



IN 1883 Simpson's was already a Toronto landmark . . .



IN 1952 telephone salesgirls boost business while . . .

## Sears Likes the Looks of Simpson's

Sears, Roebuck & Co. is keenly conscious of growing markets outside the U.S. It has expanded like wildfire in Latin America, and just opened a new store—its 16th—in Venezuela (BW—Mar. 8 '52, p181). So no one was too surprised last month when word leaked out that Sears was interested in Canada.

Specifically, Sears brass have been dickering with the Robert Simpson Co., Ltd., Toronto. With net sales of about \$180-million, five retail stores, four large mail order branches, 270 smaller mail order offices, Simpson's is the second-largest department store chain in Canada.

• **Stock Rose**—There was a rush of rumors—that Sears was buying Simpson's outright, that Sears was going to inject some cash in Simpson's mail order business, that a deal would involve redemption of Simpson bonds and preferred stock. At any rate, Simpson's stock jumped on the Toronto exchange. And there were denials and "no comments" from both sides.

Something was surely in the works, though. Taken somewhat aback by the news, Simpson chairman C. L. Burton hastened to tell his employees that their interests wouldn't be over-

looked whatever came of the talks. To the public, he said that discussions didn't involve any shares of stock. And he promised that any deal would not lessen Simpson's traditional "Canadianism." Canadians who don't mind U.S. branch plants and oil investments are apt to be a little touchy when outsiders show signs of wanting to take over a Canadian institution like Simpson's.

• **Agency?**—Sears and Simpson are saying nothing now. Further developments could come next week—or never. There may be nothing more than Sears giving some mail order help to Simpson's. Or maybe Simpson's will become agent for certain Sears lines—appliances, auto supplies, housewares.

One thing is sure: Sears would like to get in on the \$10-billion-a-year Canadian retail trade. Its only previous venture was a mail order office in Vancouver. That lasted only a couple of years, was closed in 1947 because of tariff problems.

### I. There's Simpson's . . .

Sears couldn't have picked a better entree into Canada. Canadians look

on the store's green and white billboards—"You'll Enjoy Shopping at Simpson's"—and its motto—"Satisfaction or Money Refunded"—as a promise of fair dealing. Simpson's is an institution; its "Canadianism" is beyond reproach.

In 1854 a 20-year-old Scot, Robert Simpson, arrived in Canada and went to work in a country store outside Toronto. Eighteen years later he opened a dry goods shop near the corner of Queen and Yonge (pronounce it young) streets—now the business hub of Toronto.

Simpson spent little time behind counters, kept poking around to see that his customers were "satisfied." He took some daring steps. In the early 1880s he came out boldly with an illustrated ad for women's corsets. The shock to conservative buyers was eased when he hired a lady clerk for the first time to reign supreme over the second-floor lingerie department.

• **Mail Order**—By 1896 Simpson's had 35 departments. A mail order business was opened in response to an out-of-town woman's request for yard goods. Today the mail order offices take care of millions of Canadians strung out across the nation and beyond reach of



# HEAD AND SHOULDERS ABOVE THE CROWD!



Designed for leadership . . . the only radically new freight car in more than half a century—UNICEL is built for rough treatment. Tests prove its cellular laminated construction results in 66% less road shock to loading!

Unicel holds more, loads and unloads easier, cleans and is kept clean with less effort. Costs less to operate and maintain, too. Requiring fewer repairs, the Unicel car is bigger, stronger and lighter than conventional cars.

Whether you're a railroad man, shipper or receiver, you'll be interested in what Unicel can do for you. Why not write and find out?

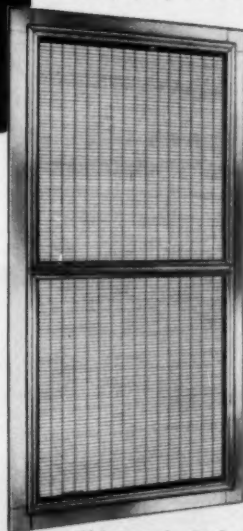


**PRESSED STEEL CAR COMPANY, Inc.**

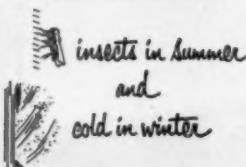
6 North Michigan Ave., Chicago, Illinois

# see how **KOOLSHADE®** Sun Screen shuts out summer heat!

Keeps rooms up to 15° cooler by  
blocking up to 90% of the sun's rays

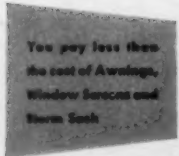


All combination screen and  
storm windows keep out—



but ONLY  
**Ingersoll 3-Way**  
Combination Windows also  
Shut out Heat!

Light comes in—but heat, glare and insects stay out! When cold weather comes, it's a matter of seconds to replace the KOOLSHADE inserts with light, easy-to-handle, snug-fitting inserts of glass for a winter wonderland of comfort. Result: All year weather protection . . . all-year home comfort. At a cost that's little if any more than ordinary combination windows! Developed by Borg-Warner's Ingersoll Products Division, and available in aluminum or California redwood, this is a striking example of how



**B-W Engineering Makes It Work • B-W Production Makes It Available**  
Attractive distributor-dealer franchises are available in some territories. For details, address Ingersoll Products Division, Borg-Warner Corporation, 321 Plymouth Court, Chicago, Illinois

Almost every American benefits every day from the 185 products made by

## **BORG-WARNER**

THESE UNITS FORM BORG-WARNER, Executive Office, Chicago:  
BORG & BECK • BORG-WARNER INTERNATIONAL • BORG-WARNER SERVICE PARTS  
CALUMET STEEL • DETROIT GEAR • DETROIT VAPOR STOVE • FRANKLIN STEEL  
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UNIVERSAL JOINT • MOOSE CHAIN • MOOSE CHAIN CO. LTD. • MOOSE • MOOSE-HEAT  
PESCO PRODUCTS • ROCKFORD CLUTCH • SPRING DIVISION • WARNER AUTOMOTIVE  
PARTS • WARNER GEAR • WARNER GEAR CO. LTD.



"... the largest item sold  
is a grand piano . . ."

SIMPSON'S STORE starts on p. 30

stores. Simpson's publishes two major and two smaller catalogs with press runs for each of one-million copies. Naturally, they're in English and French to serve Canada's bilingual market.

Simpson died in 1897 with no heir. A small group of Toronto businessmen took over, began expanding. In 1905 the first branch—in Montreal—was acquired. Now there are main stores in Halifax, Montreal, Toronto and Hamilton, and Regina—together with the 274 mail order offices.

Personal services for both retail and mail order shoppers were introduced. Today Simpson's likes to boast that clerks complain that its personal shoppers haggle over goods more than regular customers.

In 1928 a nine-story addition made the main store space still greater. Simpson's claims now to have the longest (583 ft.) uninterrupted store aisle in the world. There were writing and lounge rooms, escalators, and—Simpson's pride—one of the world's largest department store dining rooms, seating 1,300.

• **Net Income Down**—In 1929 Simpson's was incorporated, and common stock was offered to the public. That year Burton became president; eight years later his son, Edgar G. Burton, became general manager. Today control of Simpson's is believed to rest with the Burtons—with Edgar as president—and Wood, Gundy & Co., Canadian investment bankers. Assets of the company last year stood at \$106-million. But net income dropped from \$5.1-million in 1950 to \$3.1-million last year.

There was a time a few years back when Simpson's sold prefabricated homes. These have since been dropped from stock. Today the largest item sold is a grand piano. There's everything else, though, including bridal and interior decorating services. Simpson's has a fine reputation for its own decoration—has won lots of praise for its exceptional window displays. Skeptics even suggest that Simpson's has a window tie-in with a fancy New York store, but Simpson's people deny the story completely.

• **Nonunion**—For its 16,000 or so nonunion employees, Simpson's has set up a miniature welfare state. In January, 1951, they went on a five-day week. Each store has a complete medical staff and emergency hospital facilities. There are savings, profit-sharing, group insurance, hospital benefits. In 1945 Simpson's acquired a

# How to put half-girls together again!

First you have to recognize them.

Look around your office. *There*, see the girl lining up carbons? Look closer, she's a half-girl. Over there, the girl feeding forms one by one... a *half-girl*. The girl making copies... the girl following them up... the girl tracking down errors... *half-girls all*. Why? Because things like this take half their time... half your money... and every move is unnecessary!

With Uarco Business Forms, these things simply don't happen. The girls don't fool with carbons—Uarco carbons come pre-set in place. They don't feed form after form—Uarco linked sets feed themselves. There is no recopying to waste time and invite mistakes. *One* writing makes copies for all—individually marked for rapid distribution. No half-girls with *this* system!

Yet how little it costs! You pay *pennies* for paper, save *dollars* in time... it's the cost of *filled-out* forms that counts. And choosing the right form costs nothing at all—just call your Uarco Representative!

Write for free portfolio of sample forms used by others in your business. Uarco Incorporated, Room 1625, 141 W. Jackson Blvd., Chicago 4, Ill.

Factories: Chicago; Cleveland; Oakland;  
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PETER HARDEN knows! *Uarco* representative for the Indianapolis area, Pete has supplied every type, every size of business with waste-cutting forms. It's this kind of experience you command when you call your *Uarco* Representative.



**UARCO**  
INCORPORATED  
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Write for free portfolio of sample forms used by others in your business.



## Process For a Secret Weapon

The weapon? Greek Fire. The secret? Oil—"refined" out of bituminous rocks. The Greeks used it in flame-throwers to panic the Russians assaulting 10th Century Constantinople. But this "refinery"—and a hundred like it—couldn't move the Army's new Patton Tank a foot.

For the difference between the Greeks' thick, murky pitch and today's high octane gasoline . . . is the difference between crude iron jars and modern clad steel refinery equipment. It's the difference, also, between manual, gallon-at-a-time output . . . and today's designs for semi-automatic operation, control of high temperature corrosion, resistance to thermal shock, daily throughputs of thousands of barrels.

In your business, too, dramatic equip-

ment advances are continually taking place. The answer is combined planning—coordination by engineering staffs of progressive Equipment Builders, process engineers and materials suppliers. Such builders turn to Lukens regularly for its knowledge of materials and wide selection of economical clad steels.

Even with new equipment hard to get, these Equipment Builders can often recondition what you have for better, more profitable production. We'll be glad to put you in touch with builders like these in your industry.

Why not write us today, explaining your problems. Manager, Marketing Service, 483 Lukens Building, Coatesville, Pa.



## LUKENS STEEL COMPANY

WORLD'S LEADING PRODUCER OF SPECIALTY STEEL PLATE • PLATE SHAPES • HEADS • CLAD STEELS

**"... Eaton's gospel sounds  
a lot like Simpson's ..."**

**SIMPSON'S STORE starts on p. 50**

rambling country estate outside Toronto, puts up employees from all over Canada for all-expense two-week rests.

**II. . . . And Eaton's**

When you talk about Simpson's, you can't forget Eaton's. Sears, if it gets involved in Canada, won't forget it either. If anything, the T. Eaton Co., Ltd., is even more steeped in tradition than Simpson's, even prouder of its "Canadianism."

Billed as the largest retail organization in the British Empire, Eaton's towers over Simpson's with sales estimated at \$450-million to \$500-million yearly. You get no figures—Eaton's is a one-man show now under John David Eaton, grandson of the founder. There are 52 Eaton stores scattered across Canada, plus 221 mail order offices. Eaton's averages 40,000 employees—hits 60,000 in the Christmas rush. The main Toronto store boasts the largest telephone system in the world devoted to retail selling—some 95,000 local and long-distance calls daily.

Eaton's gospel sounds a lot like Simpson's—"Goods Satisfactory or Money Refunded." Eaton's still lives by the strong godly principles of Timothy Eaton, who founded the store in 1869. Eaton looked on smoking as sinful, and believed Sunday a day of rest. To this day, you can't buy tobacco in any form in any Eaton store. On Sunday, the store windows present dignified drawn shades.

• **Friendly War**—Simpson's and Eaton's grew together—and with Canada. Only three years after Timothy Eaton set up shop, Robert Simpson moved in right across the street. They still carry on a friendly—but competitive—struggle, with comparison shoppers shuttling across the street. Yet both stores scowl at the suggestion that they would ever have to descend to throat-cutting. Asked if Eaton-Simpson competition was at all comparable to the internecine warfare between New York's Macy's and Gimbels, a Canadian retailer was horrified. He felt decidedly that there was no comparison whatever.

Together, Eaton's and Simpson's dominate Canada's \$900-million-a-year department store business—walk off with about 75% of the total volume. Third in line is the venerable Hudson's Bay Co., with sales at about \$75-million. The "Bay," points out one Canadian, might have been the biggest, outstripping both Eaton and Simpson, if it had concentrated on retail selling earlier instead of Indian trading.



*Reflecting  
a good investment  
in goodwill*

**Employees appreciate the  
right kind of washroom**

According to a survey of workers from 400 plants, a clean, modern washroom is one of the first four essentials of good working conditions. It's sound business to check up and make certain your washrooms are "right."

When you specify ScotTissue Towels for your employees' washrooms, you can be sure that you're providing the best. ScotTissue Towels are more absorbent . . . extra-soft . . . and one dries both hands. For other suggestions on improving your washrooms, contact Washroom Advisory Service, Scott Paper Co., Chester, Pa.

Trade Marks "ScotTissue," "Washroom Advisory Service," Reg. U.S. Pat. Off.

**SCOTTISSUE TOWELS**  
**Symbol of the right kind of washroom**



Custom Tailored



## AIR CONDITIONING at "ready made" cost!

That's what businessmen call it, who are taking advantage of the application versatility of Brunner Self Contained Air Conditioners.

Unusual conditions involving floor space, headroom, weight restrictions, wide fluctuation in required volume, freedom from noise and vibration, can be met with these versatile units—and with impressive savings in cost and installation time.

To learn more of the advantages of air conditioning...from keeping customers in a buying mood to stepping up plant production...write us for the name of your local Brunner representative. He will show you the money and time saving way to "custom tailored" air conditioning and humidity control with Brunner self contained units.



### AIR CONDITIONERS

Self Contained  
3 Styles—4 Capacities  
3, 5, 7½, 10 hp.

**Model DAC 501 Style "S"**  
Designed for in-room installation, ready for work upon making water and electric connections. Styles "D" and "R" offer wide adaptability in remote installations for duct distribution of conditioned air.

and you will want to know more about this Brunner exclusive:

**ALL BRUNNER AIR CONDITIONERS  
ARE OFFERED WITH A**

## 5 YEAR PROTECTION POLICY

on Brunner "open type" compressors installed in these self contained, factory assembled units.

**USE THIS COUPON** it is definitely to the advantage of your pocket book and your business that you know all the benefits offered by Brunner Self Contained Air Conditioners.

Please send me at once:

- ☐ My Brunner representative's name
- ☐ Literature on Brunner Air Conditioners
- ☐ Details on the 5 Year Protection Policy

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**BRUNNER MANUFACTURING CO., Inc.** 1, New York, N. Y. & A  
Also manufacturers of  
Refrigeration Condensing Units from ½ to 75 hp.  
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**TAR SANDS** jealously guard largest oil reserves known, have foiled all previous separation attempts, such as this one at Fort MacMurray, Alberta. Now oil men will have . . .

## Another Go at Richest Oil Bed

Last month Canadian oil men decided to take another crack at-tapping the world's largest known oil reserves—Alberta's incredible Athabaska tar sands. A couple of weeks later Socony-Vacuum and Sun Oil Co. announced that they were getting in on the project, too.

• **Unyielding**—Fabulous is the word for the oily sand beds. Stubborn, too. For years they've defied all attempts to separate the oil from the sand economically. Located along the Athabaska River 235 mi. north of Edmonton, the bituminous sands extend over an estimated area of 10,000 sq. mi., with outcroppings stretching to cover 30,000 sq. mi. Canada's Mines & Minerals Branch figures the oil content at 100-billion bbl.; the U.S. Bureau of Mines says it's closer to 250-billion bbl. (total world reserves of "conventional" oil: about 80-billion bbl.).

The tar sands have been no secret. The first white fur traders came upon them when they discovered the Athabaska and Mackenzie river systems. Plenty of private concerns have tried to develop the oil reserves (picture, above); so have the Canadian and provincial governments.

• **Another Look**—A year ago there was a spurt of interest in the sands when Sidney M. Blair, a Toronto oil engineer, reported to the Alberta government that commercial extraction of the oil was possible. But most oil men were skeptical. At any rate, they were too busy drilling regular oil wells to bother

about the God-forsaken tar sands.

Last month oil people decided to take another look. Ten Canadian independent oil companies—headed by Calvan Consolidated Oil & Gas Co.—leased 250,000 acres of tar sands, with plans for a pilot plant.

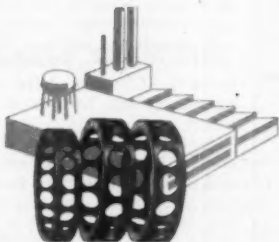
• **Trial and Error**—Socony-Vacuum and Sun Oil Co. jumped in, too, each applying for 50,000 acres. Like the Canadians, they're being conservative about possible results. One Socony official says, "Nothing immediate will come of the sands—it will take lots of trial and error." Some outsiders figure that the Socony-Sun move was mainly a land matter; the companies didn't want to be shut out of the area if something big developed.

Another outfit involved is the Swedish Shale Oil Co. It has a deal with Alberta's government to work out the extraction process. Others may join in. Some months ago engineers from Anglo-Iranian Oil Co. junketed to Alberta to look over the possibilities.

• **Just the Beginning**—Even if production plans work out, there are big problems ahead for the tar sand pioneers. The Athabaska reserves are far from striking distance at any markets; a pipeline would have to be laid over rugged country to Edmonton. And then the tar sand oil would have to compete with the growing flood of oil from Alberta, and other prairie province, wells. As it is, Western oil men are worried now about finding markets for their burgeoning reserves.

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is your problem**



**ALL INDUSTRIES**

Ball bearings with MICARTA retainer rings are doing vital jobs in all industries. These MICARTA rings are true precision products matching the finest bearings in accurate tolerances. Why not look into MICARTA's rare combination of physical properties for your own applications?

Efficiency and profit live together. They both depend on top performance of vital equipment. MICARTA® contributes to both by working better and longer than metal. It is a tough and resilient basic material . . . a solid and workable plastic.

MICARTA swallows sound and vibration. It knows no corrosion. It resists heat and pressure.

MICARTA is an ideal insulator . . . can be fabricated to the last degree of accuracy, easier and more economically than metal.

MICARTA is one of industry's most versatile materials. It can add to your profit picture. Westinghouse Electric Corporation, Micarta Division, Trafford, Pennsylvania.

J-06442-A





## ever see what a fire can do to a FINANCIAL STATEMENT?

Fire and financial statements are flashy foes. When fire wins—you lose. Yet fire, properly controlled, need have no more destructive effect on your company's finances than on buildings, equipment and production.

Today's best method of eliminating fire loss to business property is "Automatic" Sprinkler 10-Point Fire Protection... a service that surveys the specific needs, then designs, manufactures, engineers and installs fire protection equipment that counters every type of fire hazard existent in your particular business operation.

Financial Statements thrive on uninterrupted production. Smart management realizes this and prepares, knowing that fire plays no favorites. So don't let your "famous last words" be—"But we never had a fire before!" Be sure to provide "Automatic" Sprinkler protection before fire starts. To obtain full information—including the economic factors—ask us for a copy of "The ABC of Fire Protection". It's available without charge. Write for your copy today.



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OFFICES IN PRINCIPAL CITIES OF NORTH AND SOUTH AMERICA

*"Automatic" Sprinkler*

**FIRST IN FIRE PROTECTION**

## Flighty Money . . .

. . . is giving some Canadians the jitters. They fear for their dollar, should exports drop.

Last week Canada's dollar racked up a new high in New York, quoted at 102.2¢. For the first time in 20 years, Canadian railroads discounted the U.S. dollar for payment of across-the-border freight charges. A Montreal taxi driver indignantly refused 50¢ (U.S.) in payment for a 50¢ (Canadian) fare.

• **Good?**—Some Canadians are becoming more than a little anxious about their dollar's continued highjinks. There's a flood of foreign capital—from the U.S. and Europe—entering Canada. Much of it is sound investment money, reflecting a glowing optimism on Canada's future. But as in all capital movements, there's plenty of flighty, speculative money coming along for the ride.

It's this influx that gives the Canadian dollar its buoyancy, not Canada's trade position. Actually, Canada runs a substantial deficit. Usually, trade deficits mean a discounted currency on world markets. But the arrival of foreign capital has provided Canada with a handy offset.

• **What If . . .**—Suppose, Canadians worry, there's a flutter in the capital movement. Some of the hot, get-rich-quick money might decide it's done well enough and pull out. That could start a significant reverse flow, dragging down the Canadian dollar below par, uncovering the balance of payments deficit.

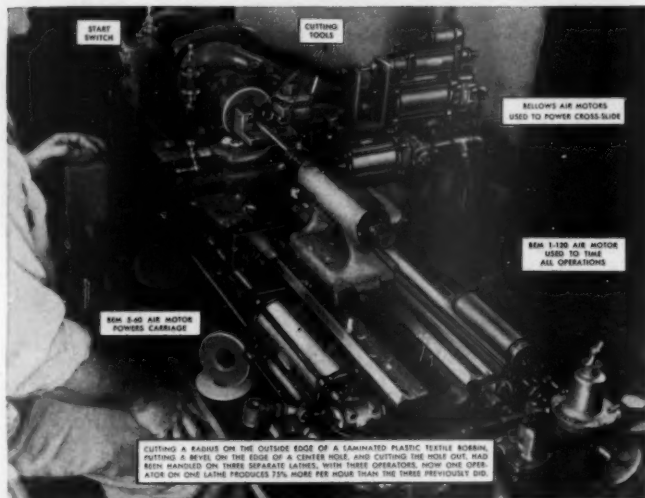
As it is, Canadians are a mite leery about their trade position. They're tied tighter than ever to the U.S. Out of \$8-billion total Canadian trade last year, \$5.1-billion was with the U.S.; and there was a \$479-million deficit on merchandise trade. Canadians were somewhat encouraged by the fact that only \$135-million of that came in the last half of 1951, and so far 1952 is off to a good start.

• **Looks Bad?**—But there are troubles ahead. The outbreak of hoof and mouth disease in Saskatchewan has shut off the \$150-million United States market for Canada's livestock products. Canada's cheese business has suffered because of import cuts forced by U.S. dairymen. Other U.S. interests are lobbying to pare Canadian imports, too.

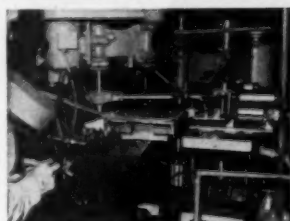
Elsewhere in the world, Britain, New Zealand, Australia, and South Africa have made deep slashes in buying abroad. That means losses of \$60 to



# SYNTHANE CORP. USES AIR TO LOWER PRODUCTION COSTS



CUTTING A RADIUS ON THE OUTSIDE EDGE OF A LAMINATED PLASTIC TEXTILE ROBBING. PUTTING A BEVEL ON THE EDGE OF A COVER HOSE, AND CUTTING THE HOSE OUT, HAD BEEN HANDLED ON THREE SEPARATE LATHES, WITH THREE OPERATORS. NOW ONE OPERATOR ON ONE LATHE PRODUCES 75% MORE PER HOUR THAN THE THREE PREVIOUSLY DID.



Milling operations power fed by air show less spoilage, longer tool life and substantially greater production.



Special machines, built around standard components and Bellows equipment solve many tricky production problems.

In more than 100 separate manufacturing operations, Synthane Corp., manufacturers of laminated plastics, Oaks, Pa., has turned to air power for cost savings. Hand-operated lathes have been made automatic; manually fed drill presses are now power fed with air; work positioning devices are air powered; fixtures opened and closed with air.

Heart of all these operations is the Bellows Air Motor and the Bellows Hydro-check. The Air Motor is really an air cylinder with built-in valve, electrical controls and speed controls. It furnishes the power. The Hydro-check is a hydraulic resistance unit used to give utmost smoothness to the air powered movement. The combination of the two gives flexible, positive, easily controlled power readily synchronized and interlocked with basic machine movements.

If you do any kind of plastic finishing, you'll want to know more about the use of these versatile units.

1392

## WRITE TODAY

Ask for the Synthane Corporation Photo Facts File and Bulletin CI-30. There's no charge. Address: The Bellows Co., Dept. BW-452, Akron 9, Ohio

# The Bellows Co.

AKRON 9, OHIO

"Controlled-Air-Power" For Faster, Safer, Better Production

\$100-million to Canadian exporters. And trade barriers are rising among important Canadian customers in Western Europe and Latin America.

## CANADA BRIEFS



Gas for export? Alberta's Conservation Board rejected five out of six applications to export natural gas from rich fields in the central and southern part of the province. Approved was West-coast Transmission Co., Ltd.'s plan to build a line from the Peace River fields (dotted line, above) to Vancouver—and possibly the U.S. But it's doubtful if there's enough gas in the Peace River area now to make a U.S. line feasible.

Wall Street's "Thundering Herd"—Merrill Lynch, Pierce, Fenner & Beane—will open its first Canadian office in Toronto. MLPFB&B may set up shop elsewhere in Canada, too.

Atomic Energy of Canada, Ltd., a new Crown company, has taken over Canada's atomic program, aims at having atomic-powered industrial powerplants within 10 years.

A short cut for U.S. truckers on the Buffalo-Detroit run has been O.K.'d again by the Ontario government. Effective during the war, suspended in 1945, the 250-mi. route allowed trucks to travel through Ontario around Lake Erie in bond. But Ontario will charge truckers the provincial government gas tax on 11¢ a gal., even if fuel was bought in the U.S.

Capital spending in Canada for 1952—on new machinery and construction—will hit \$5-billion, says the Dept. of Trade & Commerce in Ottawa. That's up 9% over 1951 in dollar terms.

BUSINESS WEEK • Apr. 12, 1952



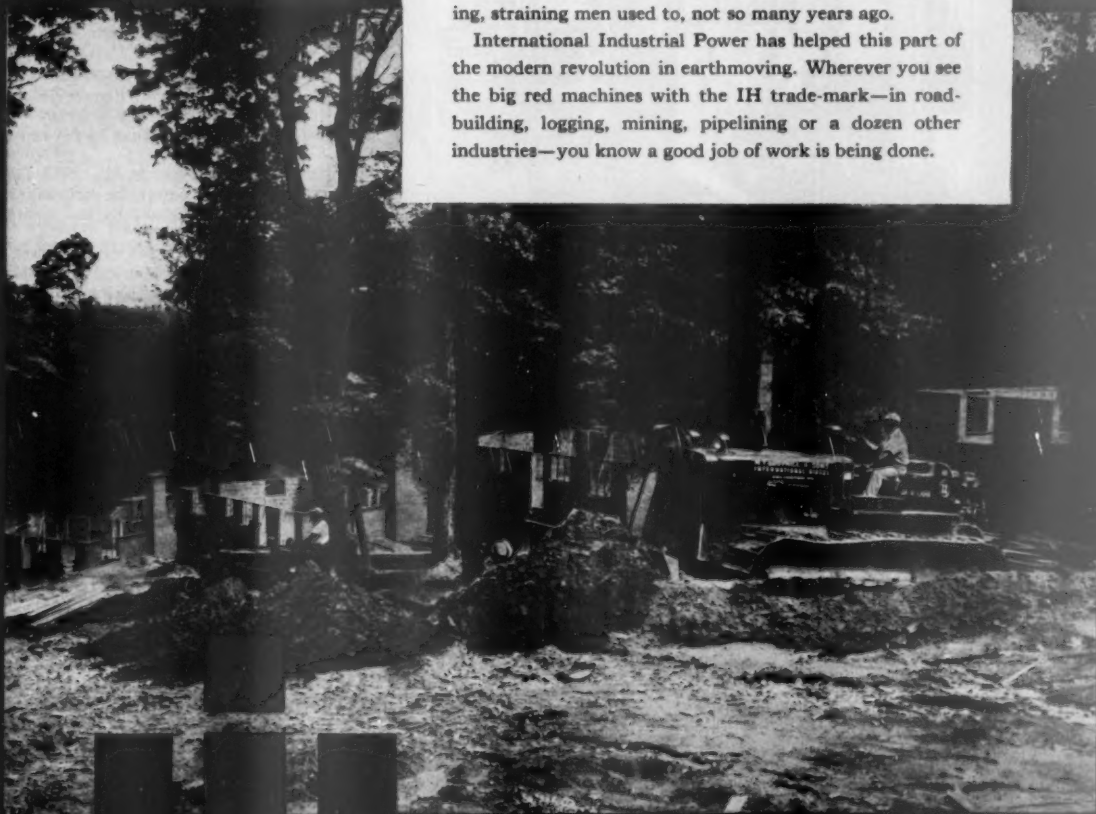
## Want to dig a hundred basements?

The mass builders who are solving today's housing problems no longer have to build regimented houses in regimented rows.

Today, machines like this new International tractor can even tackle hillsides to build gracious, curved streets wherever you want them to go . . . to dig a hundred basements, level a hundred front lawns and help build hundreds of houses with individualism at mass production prices.

Because, of course, one man with a big red crawler tractor can move more dirt and move it faster than scores of sweating, straining men used to, not so many years ago.

International Industrial Power has helped this part of the modern revolution in earthmoving. Wherever you see the big red machines with the IH trade-mark—in road-building, logging, mining, pipelining or a dozen other industries—you know a good job of work is being done.



### INTERNATIONAL HARVESTER

Industrial Power . . . McCormick Farm  
Equipment and Farmall Tractors . . . Motor Trucks  
. . . Refrigerators and Freezers

**BIG BUSINESS IN WASHINGTON.** M. T. Broyhill and Sons, building well over 1,000 all-brick homes a year, has found that for big jobs it pays to use big machines. International TD-24 crawlers grade off hills, clear roads, push down trees and dig basements quicker and cheaper. The TD-24 is the fastest crawler on the market. It has the most drawbar horsepower, and it can turn with power on both tracks.

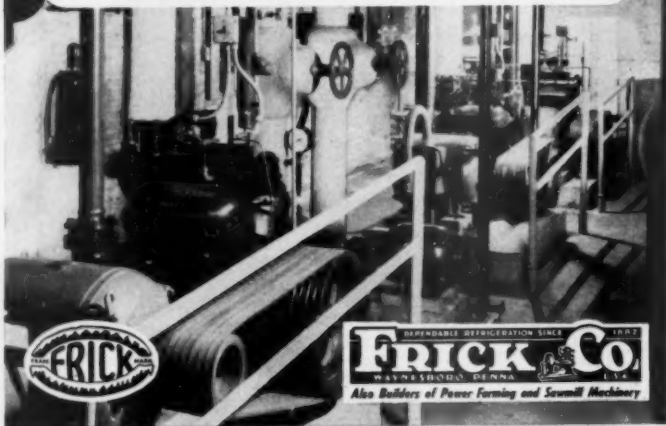
## INTERNATIONAL POWER THAT PAYS

## FRICK AIR CONDITIONING SERVES CHICAGO INSURANCE BUILDING

The seven-story building of the United Insurance Company is cooled in summer with three NEW "ECLIPSE" compressors delivering 150 tons of refrigeration.

"We are very pleased with the entire system," says an official of the Company. Installation by Midwest Engineering & Equipment Co., Frick Sales Representatives in Chicago.

For dependable air conditioning, ice making, quick-freezing or refrigeration service, see your nearest Frick Branch Office or Distributor.



## KEYKOTE

New Patented Compound Phosphatizes Iron and Steel in Minutes!

Consider these six great advantages for a moment and you'll agree that nothing can equal the speed, ease and economy of KEYKOTE® phosphatizing:

- |   |   |
|---|---|
| <p><b>1</b> Processing completed in one to two minutes by immersion or spray.</p> <p><b>2</b> A dry, powdered material that can be used at a pH as low as 3.</p> <p><b>3</b> No stainless steel equipment needed — black iron tanks adequate.</p> | <p><b>4</b> Needs no rinse, no chromic acid dip — meets government specifications.</p> <p><b>5</b> Will not sludge or leave powder on metal — no screens needed in tanks.</p> <p><b>6</b> Only 1/2 to 1 oz. used per gallon of water — at temperatures of 160-170° F.</p> |
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## READERS REPORT

### Transit's Bleak Road

Dear Sir:

The problems of city transit companies are well related in your article "Privately Owned Transit Sees a Bleak Road Ahead" [BW—Mar. 15, p. 86]. We circulated the article to about 400 VIP's in San Antonio.

LEWIS W. BAILEY  
SAN ANTONIO TRANSIT CO.  
SAN ANTONIO, TEXAS

### Taft's Losses

Gentlemen:

In your article "Republican Campaigners are Throwing Figures Around" [BW—Mar. 29, p. 94], you say that Taft has won every time he has run for office in Ohio.

That is not so. In the 1932 Ohio State Senate contest, he lost, running behind three Democrats and another Republican.

While on this matter of figures, I often hear Taft supporters say that his 1950 plurality was the biggest in the history of the U. S. senatorial races in Ohio. The facts are that Taft's plurality of 431,000 in 1950 over Joe Ferguson was exceeded by Theodore Burton and Simeon Fess, both in 1928.

Taft's a good senator, but I have my doubts that he measures up to the job of being President.

R. A. SMITH  
SANDUSKY, OHIO

### Gone Are the Days

Dear Sirs:

Your article "Selling: The Easy Days Are Over" [BW—Mar. 15, p. 22] is interesting. It is, however, discouraging to find manufacturers pinning their hopes for mass sales on sales techniques, when the crying need of today is consumers' goods of functional design and good workmanship. The American manufacturer has been going so fast he missed the stop-signs along the road.

Does the automobile manufacturer ever ask anybody whether he likes to navigate his car with a craned neck rather than by comfortably sitting high where he can see things? Does the appliance manufacturer try to find out whether the housewife feels her new stove is as safe and efficient in use as she wishes it were or even as her old one was? Does the furniture maker wonder if you like kicking your shins against the fancy legs and cross-work under his dining table? Does he inquire how you enjoy having your back tortured in his "easy" chair?

In short, what should induce the





## Sulfuryl Chloride

**WOOLENS DON'T SHRINK** when treated with this Hooker Chemical. Sulfuryl Chloride has other uses besides keeping your new sweater the same size as when you bought it. *Dyes and medicines*, for example, are made with this useful reagent.



**Lots of things are made better  
with Hooker Chemical  
BUILDING BLOCKS**

## Thionyl Chloride

**MILLIONS OF PILLS** go down the hatch every month. Hooker Thionyl Chloride helps make many of them (for example: antihistamines, antimalarial drugs, synthetic vitamins). Hooker is a leader in helping the drug industry supply new medicines in easy-to-take form.



**MANUFACTURERS**—Maybe these versatile Hooker Chemicals will give you some product ideas. In 30 different industries today, Hooker is known as a basic supplier of chlorine, caustic soda, and chlorine compounds. Hooker research is resulting in many developments you should know about. Send today for the illustrated booklet, "Story of Hooker Chemicals."

*From the Salt of the Earth*

**HOOKEER ELECTROCHEMICAL COMPANY**

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New York, N. Y. • Wilmington, Calif. • Tacoma, Wash.

CHLORINE • CAUSTIC SODA • PARADICHLOROBENZENE

**HOOKEER  
CHEMICALS**

abandoning the town of Limerick, and congratulates the mill for expanding its New England operations.

### Precast vs. Bricks

Dear Sirs:

I refer to a feature article on precast concrete sandwich walls in which some misleading comparisons were drawn with 12-in. brick walls [BW—Mar. 22'52,p138].

A competent architect would hardly use a 12-in. solid brick wall for the two-story houses pictured with your article. A more realistic comparison for the concrete sandwich wall would be with the 10-in. SCR insulated cavity wall, which consists of 4 in. of face brick, 2 in. of Owens-Corning Fiberglas cavity wall insulation—pouring type—and 4 in. of backup masonry.

Your article was careful not to mention cost figures, but the type of concrete wall construction used in the Marietta (Ohio) project costs about \$2.50 per sq. ft. An SCR insulated cavity wall can be built of face brick in Chicago for about \$2.20 per sq. ft. The precast concrete walls used in Forrestal Village at the Great Lakes Naval Training Station were thicker than those at Marietta and used a more expensive insulation. The cost per sq. ft. was undoubtedly even greater.

Another important item that should receive careful attention in these days is steel conservation. A typical precast reinforced concrete sandwich panel wall requires about  $\frac{1}{2}$  of a lb. of steel per sq. ft. of wall area. For example, on the Marietta project previously mentioned, the 560,000 sq. ft. of wall required about 210 tons of "B" product steel and 430 tons of "A" product steel.

The concrete walls used on the Marietta project make no provision for condensation within the wall. If it is assumed that condensation will drain to the bottom of the wall panel, the question arises as to what will happen to the thin concrete shells when the collected water freezes and exerts the accompanying high pressure.

Other important points which should be considered in making a comparison between brick and concrete walls are maintenance costs, fire resistance, heat loss and esthetic appearance or resale value.

C. T. GRIMM

STRUCTURAL CLAY PRODUCTS INSTITUTE  
WASHINGTON, D. C.

• BW's article emphasized a mass production building technique. However, cost comparisons of various wall materials for Forrestal Village and Marietta concluded that sandwich wall construction was preferable.

**What's  
wrong  
with this  
picture**

● Nothing at all! But chances are any veteran shop man will instantly ask, "What's the idea of having an 'Automatic' in the turret lathe department?"

The "idea" is simply this: Warner & Swasey 1-AC Single Spindle Automatics can handle many of your regular small and medium lot runs *more profitably* than your hand-operated machines.

That's because the 1-AC operator can change setups quickly for the job at hand. There are no cams to change—he simply re-adjusts trips for feed, speed and stroke controls. And, on certain jobs, one man on a 1-AC can turn out more work, of more uniform accuracy, than two men on hand-operated machines.

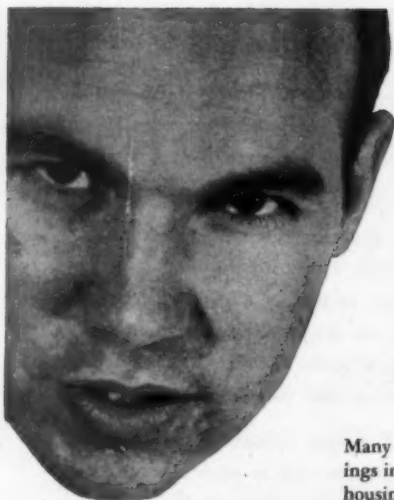
To find out whether 1-AC Single Spindle Automatics fit into your production picture, call in your nearest Warner & Swasey Field Representative. He'll study your jobs and methods and advise you correctly.



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&  
SWASEY**  
*Cleveland*

YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY





*Can you  
reduce costs  
with a  
smaller  
bearing  
having the  
same capacity?*

Many have — with substantial savings in money and materials. Smaller housings and surrounding machine members are often possible because

of the greater load capacity Guiderol® bearings carry in a smaller radial bearing space. Over 38% greater than the next highest rated bearing that is dimensionally interchangeable. Not to be overlooked also is the fact that precision performance, without roller skewing, of a Guiderol bearing is in direct proportion to its comparable load carrying capacity.

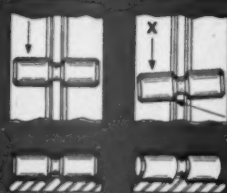


#### GREATER CAPACITY and ANGULAR RIGIDITY

As no cages are needed, Guiderol bearings use a full complement of small diameter rollers over which greater loads can be distributed. Also rollers of full race width provide full race support and increased angular rigidity. One Guiderol will often replace two ordinary bearings.

#### PREVENTING ROLLER SKEWING

A guide rail on the inside diameter of the outer race maintains roller alignment. Normally, no correction is required. Should misalignment cause tendency to skew, the guide rail touches grooved rollers back into position by momentary contact at Y. Arrow X indicates the direction of motion.



*Rollers Roll More Load*



Write today for the new  
McGill Catalog No. 35  
last released. McGill  
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PRECISION  
BEARINGS

## HEALTH

### Medical Battle

San Diego doctors charged group medical plan was illegal and unethical. Court turned down the complaint.

Since the end of the war, arguments between the prepaid (dues-collecting) medical care organizations and the old-line doctors have been growing steadily hotter. The organizations think the doctors' fees are too high; the doctors think the organizations may be a step toward socialized medicine. One focal point of this quarrel has been San Diego, California, where the two viewpoints are still in the thick of a running 34-year battle. Latest round was won by the prepaid team.

• **Court Battle**—The opponents are Complete Service Bureau and San Diego County Medical Society. The bureau is a nonprofit organization that collects a small monthly fee from members and gives them inexpensive medical care in return. Its administrative staff, headed by president Dave Parmer, is run by laymen rather than doctors. The medical society is affiliated with the American Medical Assn. and is dead set against any kind of socialization.

In October, 1948, the bureau sued the medical society under California's Cartwright Antitrust Act for refusing membership to three of its doctors.

The medical society, in turn, filed a counter complaint charging that the bureau was operating (1) unethically by advertising, and (2) illegally by splitting medical fees with laymen—with Dave Parmer and his administrative staff.

• **One Decision**—The medical society's counter complaint was turned down completely by the court. The verdict: Though the bureau doctors themselves can't advertise ethically, the business office can. There is a difference between practicing medicine and merely providing medical care; since the bureau is classed as a medical care organization (rather than, for instance, a hospital), it can divvy up its money any way it likes.

• **Operation**—An unusual feature of the bureau's setup is that often non-bureau doctors and specialists—including medical society members—cooperate with the bureau by allowing its members reduced rates. The specialist gets reimbursed by the California Physicians Service, a medical plan roughly parallel to that of the bureau—except that it's backed by the medical society.



## Good turn for a big wheel

To men of the sea, a ship's propeller is known as a wheel or screw. But, by any name, this vital ship part has always posed a knotty maintenance problem. Salt water corrosion, galvanic attack, and the terrific pounding action of the sea cause carefully designed propeller blades to become pitted and deformed . . . resulting in loss of speed to the vessel.

A neoprene coating material which can be brushed on like paint may soon provide a cure for this trouble spot. One shipping operator has been testing heat-cured neoprene coatings for the past four years on sea valves, pumps, condensers, and other marine equipment used to handle sea water. On the basis of these tests, he feels that, with such protective coatings, many parts which formerly required frequent reconditioning and replacement

may now last the life of the ship.

More recently, he's been using a similar neoprene coating that cures at normal air temperatures. Preliminary tests of this air-cured coating have shown encouraging results . . . even when used on propeller blades in the roughest kind of service.

Neoprene coatings are widely used throughout industrial plants, too. They provide long-lasting protection for all types of wood, metal, and concrete surfaces . . . especially where the use of oil, grease, or chemicals presents a problem.

For more information about neoprene, write for our booklet "Design for Success with Neoprene." It describes neoprene's properties and important uses. E. I. du Pont de Nemours & Co. (Inc.), Rubber Chemicals Div. X-4, Wilmington 98, Del.

BETTER RUBBER PRODUCTS ARE MADE WITH

**DU PONT NEOPRENE**



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BETTER THINGS FOR BETTER LIVING  
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NEOPRENE RESISTS: OXIDATION • HEAT • SUNLIGHT • OZONE • OILS • GREASE • CHEMICALS • FLEX-CKACKING • AGING • ABRASION • FLAME

## DO YOU HAVE A MOISTURE PROBLEM?



Here's a  
**NEW**  
Laminated  
Material

Practically everybody concerned with protective packaging has moisture problems. Indeed, the control of moisture—its retention or exclusion—is the greatest single function of protective packaging today.

Rhinelander glassines laminated with special waxes have long been regarded as among the best moisture barriers known.

And now we are proud to announce the development of a new manufacturing technique by which we are producing laminations of extraordinary moisture tightness. Probably better than any you have seen.

We'd like to demonstrate with testing samples. Why not write us today.



## PROMOTION



**THIS IS TUFFY** Its makers, S.O.S. Co., designed it for washing pots. Later, they found out what happens when . . .

## A Publicity Man Goes On a Springtime Frolic



### FIRST IDEA

Since Tuffy was made of plastic fibers that wouldn't scratch dishes, publicity man figured it ought to wash babies too. (TURN TO P. 70.)

# "74.2% MORE STEAM PER DOLLAR-

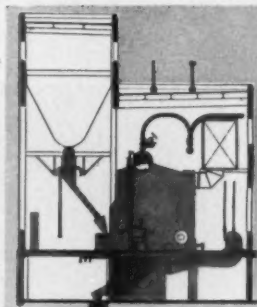
that's what this modern coal installation  
gives us at Perfection Stove Co.!"

says George I. Chittenden, consulting engineer  
for the Perfection Stove Company.

Perfection's old installation, if operating  
today, would generate 1,362 lbs. of steam  
per hour per dollar. The new plant pro-  
duces 2,373 lbs. of steam per hour per  
dollar. Here's proof of the economy and  
efficiency of bituminous coal burned with  
modern equipment.



This view of Perfection Stove's new steam  
plant shows the coal elevator and ash silo.  
Coal is delivered through an under-track  
hopper, lifted by elevator to storage. A  
pneumatic system carries ashes to the silo.



This sectional drawing of the  
plant's boiler installation shows  
the coal bunker over the firing  
aisle. A weigh larry with dust-  
proof connection feeds coal to the  
stokers. The plant is clean and  
efficient—typical of the modern  
design that makes full use of  
coal's inherent advantages.

● More and more consulting engineers are advising  
their clients that *bituminous* coal is the best buy for  
steam fuel. *Here's why:* Nearly everywhere coal  
yields more BTU's per dollar . . . modern combustion  
installations step up this inherent economy . . . up-to-  
date coal- and ash-handling systems cut labor costs  
to a minimum.

Tremendous reserves give coal a future depend-  
ability of supply no other fuel can offer. And to mine  
this coal, America has the world's most productive  
and efficient coal industry—making coal the one fuel  
most likely to remain reasonably stable in price.

If you're building or planning to modernize a  
steam plant, call in a competent consulting engineer.  
He'll show you how a modern coal installation can  
save you money and do a more efficient job, too!

## **BITUMINOUS COAL INSTITUTE**

A Department of National Coal Association  
WASHINGTON, D. C.

**If you operate your own steam plant, you can't  
afford to ignore these few down-to-earth facts!**

**COAL** in most places is today's lowest-cost fuel.


**COAL** resources in America are adequate for all  
needs—for hundreds of years to come.

**COAL** production in the U.S.A. is highly mechanized  
and by far the most efficient in the world.

**COAL** prices will therefore remain the most stable of  
all fuels.

**COAL** is the safest fuel to store and use.

**COAL** is the fuel that industry counts on more and  
more—for with modern combustion and  
handling equipment, the inherent advantages  
of well-prepared coal net even bigger savings.

FOR HIGH EFFICIENCY  FOR LOW COST

# YOU CAN COUNT ON COAL!

*Mailing  
package ideas...*



*...on request*

Your name on your letterhead will bring you this 20-page illustrated book free. Write today.

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**BONDS PAINT  
TO STEEL!**

Automobile bodies and sheet metal parts, refrigerator and other cabinets, washing machines, projectiles, rockets, bombs, and cartridge tanks are typical of the many products whose paint finish is protected by "Granodine."

"Granodine" meets Government  
Finish Specifications



Write for descriptive folder



**AMERICAN CHEMICAL PAINT CO.**  
AMBLER, PA.

**PUBLICITY MAN IN SPRING** (Pictures start on page 68)



**STRAINER** Tuffy's "wonder-mesh" not only sheds kitchen grease; it might strain martinis as well.



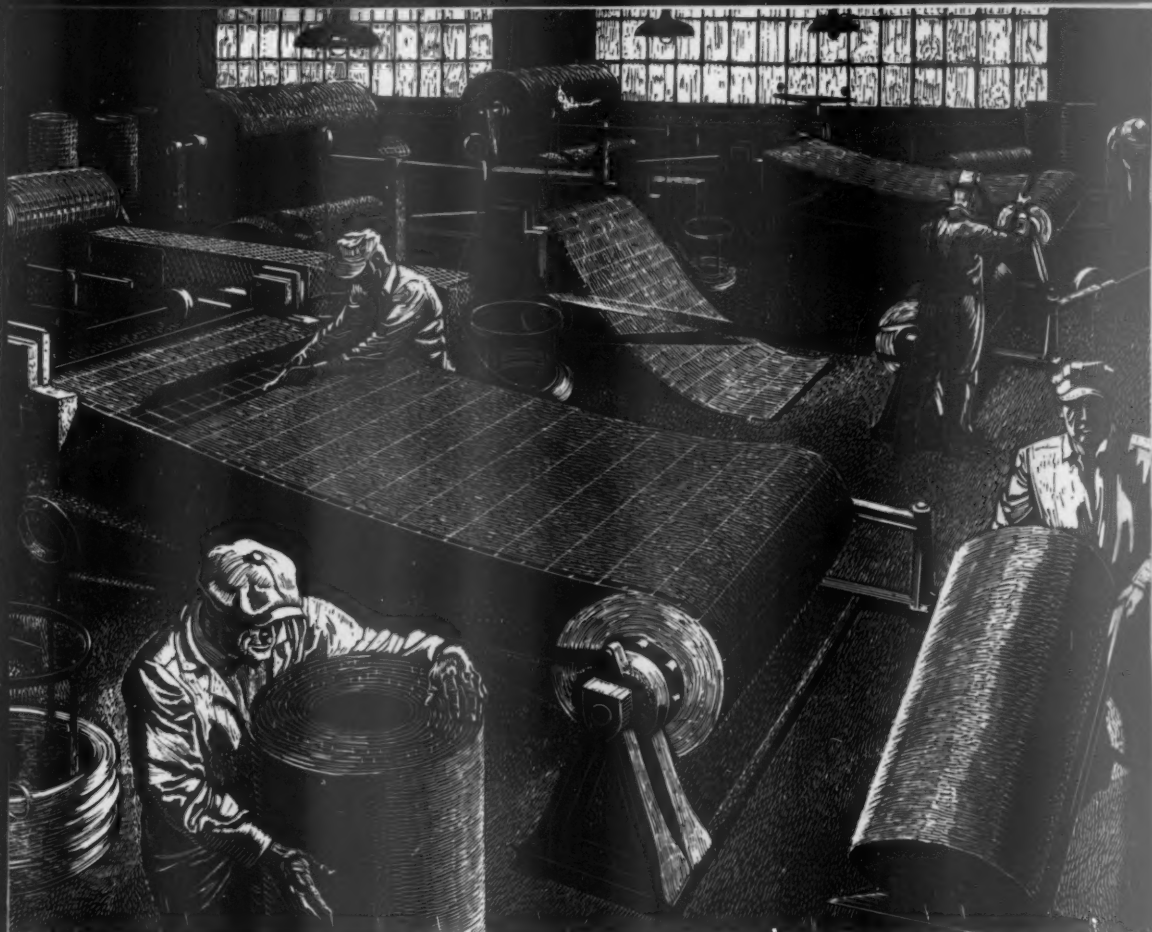
**RAT** It can also be used, publicity man says, as a "rat" to highlight a woman's crowning glory.



**SWING** Tuffy is manufactured in the form of a stocking with the ends looped in. Publicity man took this picture to show how strong it is.

(TURN TO PAGE 73.)





*Making Steeltex Lath*

*Scratchboard Drawing for Pittsburgh Steel Company by T. W. Hunter*

## Progress in Steel . . . Serves The Construction Industry

The vast construction projects you see today on every hand depend upon steel in many forms. This is one of several reasons why Pittsburgh Steel's Program of Progress was conceived—to supply more Pittsburgh Steeltex reinforcing lath to the construction industry.

Steeltex is a special mesh, welded from Pittsburgh wire and stitched by the ingenious machines shown above to heavy, waterproof, fibrous backing. It is used extensively to reinforce concrete floors, interior plaster, masonry veneer and stucco walls in all types of structures from airport buildings to housing developments—from ware-

houses to office buildings—in fact, wherever you find good construction.

The Program of Progress at Pittsburgh Steel is designed to increase ingot capacity by fifty percent and to diversify the Company's line of products better to serve its customers. Some of the objectives of this expansion pro-

gram have been accomplished—others are rapidly nearing completion as outlined below. This Program of Progress is an important part of the steel industry's answer to the universal demand for more steel in order that military and civilian requirements for this vital metal be supplied in full.

### PROGRAM OF PROGRESS

Acquisition of Thomas Strip Division.....	100% complete
Installation of new High Lift Blooming-Slabbing Mill.....	100% complete
Increase Blast Furnace Capacity by 12%.....	50% complete
Increase Open Hearth Capacity by 50%.....	60% complete
Installation of new 66-inch Hot Sheet-Strip Mill.....	60% complete
Installation of new 66-inch Cold-Rolled Sheet-Strip Mill.....	40% complete

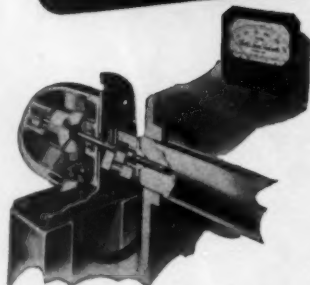


# Pittsburgh Steel Company

Pittsburgh, Pennsylvania

By Makers of RELIANCE Precision-Built MOTORS

**TO IMPROVE  
YOUR PRODUCTION...**



combining both

**PRECISION CONSTRUCTION**

• **LOW PRICE** •

**ONLY \$71 COMPLETE**

(less in quantities of two or more)

• Continuous visual speed indication by this sturdy instrument will help you improve quantity and quality of production—detect machine troubles *in time*—reduce spoilage. Accurate indications from 100 to 5000 rpm.—special scales to your order.

Write for Bulletin A-2406.

Sales Representatives in Principal Cities

**RELIANCE  
ELECTRIC AND  
ENGINEERING CO.**

1089 Ivanhoe Road • Cleveland 10, Ohio

**TUFFY (Continued from page 70)**



**THREE TUFFIES**

Publicity man's final burst of imagination had results above. Company went back to billing Tuffy as a pot-washer.

## Publicity Man in Springtime

Last December S.O.S. Co. (makers of kitchen steel-wool pads) introduced into the western market an interesting little lump of red and yellow plastic threads. It was about the size and shape of a large jelly doughnut. It was woven in the form of a long stocking, with the ends spiraled in and tied. Its name was "Tuffy." Its makers, before their publicity man got hold of it, unimaginatively billed it as a new kind of kitchen pot-washer.

Tuffy, S.O.S. said, cleaned pots and pans more effectively than sponges, dishcloths, or brushes. Being made of plastic, it wouldn't scratch silver or glassware. It wouldn't rust or rot. It had special qualities that made it

shed grease and food particles when rinsed under a tap.

Until the publicity man barged into the picture, S.O.S. thought these selling points were quite adequate. Tuffy went over well even before it was advertised as a pot-washer. When the advertising broke in January, according to S.O.S., a near-panic ensued. A wholesale grocery outfit in Los Angeles ordered 72,000 Tuffies during one 10-day period, sold out and had to order 12,000 more a week later. In Des Moines, advertising broke on Monday morning and Tuesday morning, Jan. 14 and 15; jobbers in that city were out of stock by 9 o'clock Tuesday morning. Trade



# klystrons

## AT WORK IN THE LABORATORY

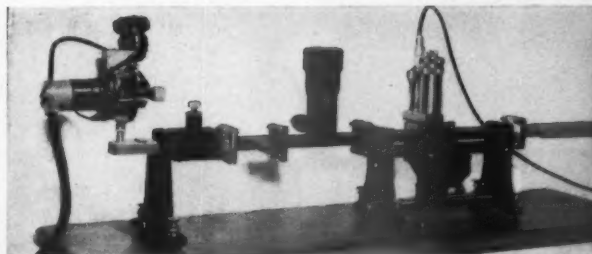
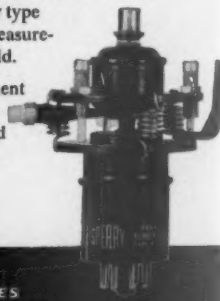
Sperry Klystron tubes are doing heavy duty in the labs where a practical source of continuous microwave energy is needed for general test and measuring work. A complete line of 2K tubes is available for bench oscillator use from 2660 to 10,300 mc.

Stemming from its sponsorship of the development of the Klystron in 1939, Sperry has had many years' experience in the manufacture of these tubes. Besides the 2K-series for laboratory use, other Sperry Klystrons include transmitting tubes for microwave relays, radars (both pulsed and cw), radar beacons, aeronautical navigation (DME and ILS), and radio communication systems. Other Sperry Klystrons are used as local oscillators in radar and microwave communication receivers. Klystron multiplier tubes are used in frequency standards and for other applications where crystal control at microwave frequencies is desired.

Sperry's pioneering in microwave measuring techniques has resulted in a complete line of Microline® instruments which includes every type of device essential to precision measurement, in the entire microwave field.

Our Special Electronics Department will be happy to supply you with complete details on Klystrons and Microline equipment.

BY N. RES. U. S. PAT. OFF.



### SPERRY 2K SERIES

	TUNING RANGE	POWER OUTPUT
2K 41 (WITH TUNER)	2660 - 3310 mc	250 mw
2K 42	3300 - 4200 mc	250 mw
2K 43	4200 - 5700 mc	250 mw
2K 44	5700 - 7500 mc	250 mw
2K 39	7500 - 10,300 mc	250 mw

# SPERRY

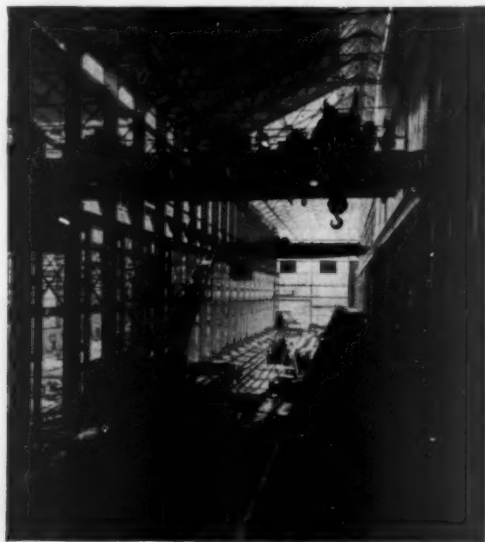
## GYROSCOPE COMPANY

DIVISION OF THE SPERRY CORPORATION

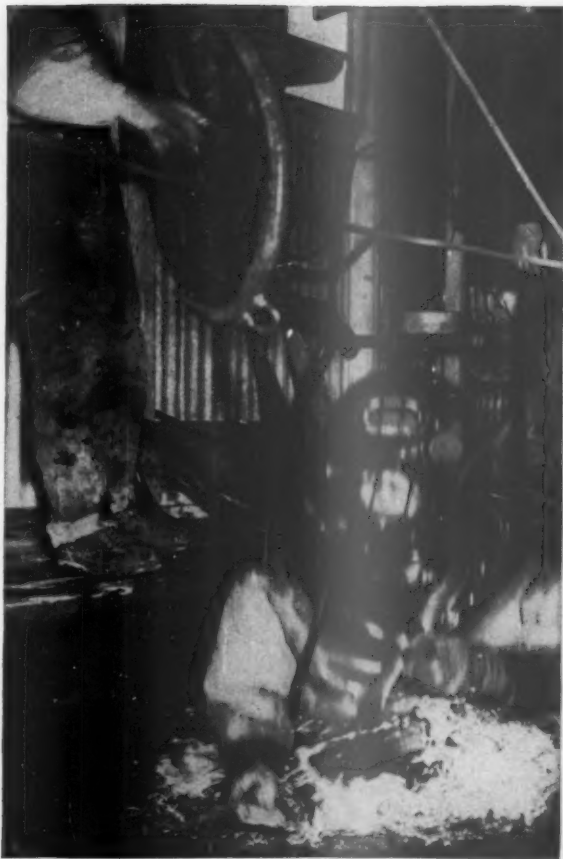
GREAT NECK, NEW YORK · CLEVELAND · NEW ORLEANS · BROOKLYN · LOS ANGELES · SAN FRANCISCO · SEATTLE  
IN CANADA — SPERRY GYROSCOPE COMPANY OF CANADA, LIMITED, MONTREAL, QUEBEC

# Pictures from Industry

These are excerpts from stories in the current issue of American Hoist & Derrick Company's house magazine, the American Crosby Clipper. If your business involves the use of hoists, derricks, locomotive cranes, revolver cranes, Crosby Clips or other equipment in our line, why not let us put your name on the mailing list. Use coupon on right hand page, to start with the current issue.



**Builds as it works.** At Marietta, Ohio, new plant of Electro Metallurgical Co. keeps right on producing as construction work enlarges capacity. American 40-ton DiesElectric Locomotive Crane shown here is now used for both construction and production. Its high travel speed, smooth power, and design that eliminates tons of wearing parts make the DiesElectric remarkably economical for either job, or both.



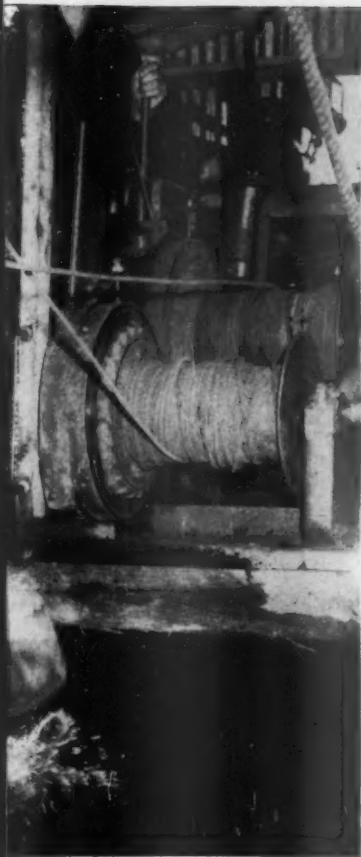
**Underwater logging.** Working blind, in swirling mud, divers of Shelton Salvage Co., Shelton, Washington, are harvesting 2,000,000 feet of sunken logs from Oakland Bay. Tremendous power of a barge-mounted American Hoist is used to loosen and bring up the logs. On land and sea, American Hoists get the toughest assignments because they're the toughest built.



**Big-scale teamwork.** Working as a team, two American Revolver Cranes handled caisson work on the Yorktown, Va. bridge. Steel guide towers were placed first. Caissons were lowered through towers. Dredging and concrete pouring were then completed by the versatile floating cranes.

The AMERICAN HOIST line includes: Hoists • Derricks • Locomotive Cranes • Crawler Cranes • Revolver Cranes • Portable Material Elevators





**Picket boat takes to air.** Midway between land and sea, this new type Coast Guard boat is on its way to Houston, Texas for port patrol duty. Lift from rail car to salt water is handled by an American Diesel Locomotive Crane—every expert's choice for smooth, precise handling of valuable heavy loads.



**New crawler crane.** Best news of the year for contractors is the new  $\frac{3}{4}$ -yard American Crawler. Anti-friction bearings in brake linkage save 60% of leg effort for operator. Many new speed and convenience features make it a phenomenal money-maker. Machine is available as shovel, pull shovel, dragline or crane.

*Modernize...economize...with*

**American Hoist**

**& Derrick Company**

**ST. PAUL 1, MINNESOTA**

26

MAIL THIS COUPON

21602

**American Hoist & Derrick Co.**

**St. Paul 1, Minnesota**

- ☐ Please add my name to your mailing list to receive your magazine, the American CROSBY CLIPPER.
- ☐ Also send more information on following equipment:

Name \_\_\_\_\_

Company \_\_\_\_\_

Type of Business \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Handiwinch • Roofers Hoist • Marine Deck Machinery • Sugar Cane Handling Equipment • Car Pullers • Blocks and Sheaves • Crosby Wire Rope Clips



**"WE BANK ON  
OUR FIGURES"**



Peter K. Lannon,  
Assistant Mgr.  
North American Bldg.  
Chicago, Ill.

## DUNHAM VARI-VAC HEATING

**Cuts fuel costs  
up to 40%**

You, too, can count on substantial savings with Dunham Vari-Vac® Differential Heating. That's because this fully automatic, weather controlled system uses far less steam to bring you unsurpassed comfort... regardless of the size, type, age or location of your building.

For full information... or for a free survey of your heating needs... call your Dunham Sales Engineer, or WRITE FOR BULLETIN 2101-7.

® Variable Vacuum

C. A. DUNHAM CO., 400 W. Madison St., Chicago 6, Ill. In Canada: C. A. Dunham Co., Ltd., Toronto. In England: C. A. Dunham Co., Ltd., London.

**DUNHAM**

heating systems and equipment

TUFFY (Continued from page 72)



**PERILS** Publicity man went through a lot of trouble to get his pictures. Here, he persuades girl that Tuffy is strong enough to hold her weight.

papers began carrying lurid S.O.S. ads headed, "Warning! Don't get caught short on Tuffy!"

• **Popular Vote**—Several surveys that were conducted had equally happy results. One of California's biggest supermarket chains, with a total of 35 stores, sent out a questionnaire to its store managers and asked them what product they would most like to see featured in the chain's advertising. 28 out of the 35 managers voted for Tuffy.

S.O.S. ran a test sale of Tuffy in Chicago in May, 1951. Three months later an independent research company named Market Facts, Inc., interviewed 300 housewives to find out their reactions.

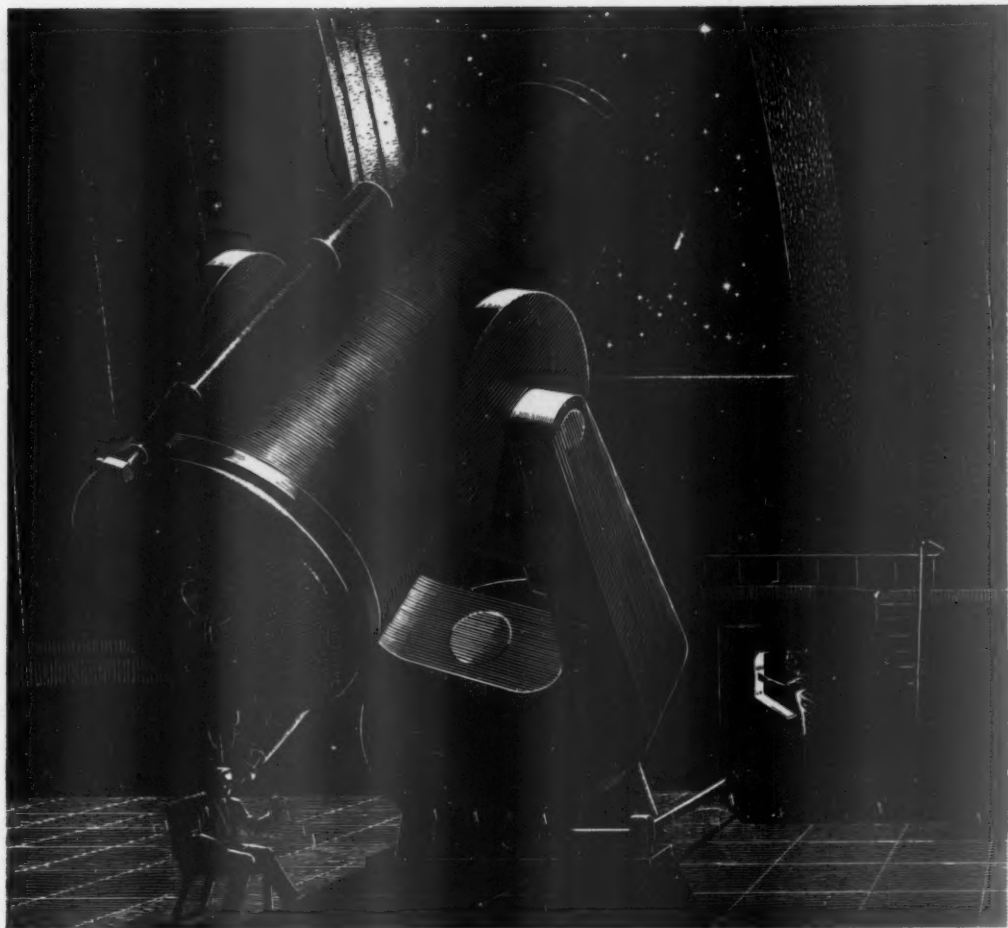
Of these, 94% were still using the Tuffy they had bought, and about 86%

said they would invest in another when the old one wore out.

• **Hand in Hand**—When S.O.S. got the idea for Tuffy, the company had no intention driving its "magic scouring pads" (steel wool) off the market. The pads are principally for the harder dish cleaning jobs, such as scouring burned food off the bottoms of frying pans. This, Tuffy won't do.

Beginning Apr. 26, Tuffy will join the scouring pads on TV. The company is laying out \$18,000 for a one-minute plug on TV's Show of Shows. Tuffy will also be advertised in metropolitan newspapers all over the country.

None of these plans, however, satisfied the publicity man. He went ahead and staged a campaign of his own (see pictures).



## Venus has no privacy . . .

...under the revealing scrutiny of the Schmidt photographic telescope. Likewise in businesses using modern instrumentation the hidden faults in development and production quickly lose their privacy. Today science works shoulder to shoulder with business in the use of precision instruments. Our part in this program for the past 15 years has been the manufacture and application of instruments for research, chemical analysis and control, measurement of vibration, acceleration, and structural stress. Case histories from our experience could be profitable to you. May we explore them together?



**BENDIX PRODUCTS DIVISION** Bendix Aviation Corporation, South Bend, Indiana, is a long-time user of Consolidated dynamic recording equipment to aid them in development and production of hydraulic landing gear, jet engine fuel control, fuel injection systems and many related aircraft components.

## Consolidated Engineering

CORPORATION

300 North Sierra Madre Villa, Pasadena 8, California.

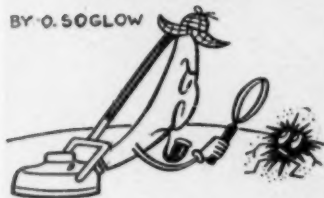


**Consolidated's Recording Oscillograph** records up to 18 simultaneous reactions as brief as one hundred millionth of a second. Produces clear permanent records. Used in many fields from medicine to rocket-propulsion. Write for Bulletin CEC-1500B.

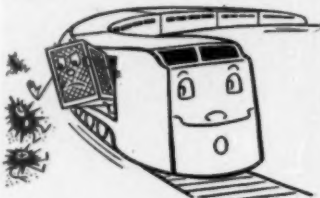
analytical  
instruments  
for science  
and industry

# AIR-MAZING FACTS

BY O. SOGLOW



**VACUUM CLEANERS DETECT ATOMIC DUST!** Warnings of any radioactive dust in the air will be flashed to Californians with the help of 19 ordinary vacuum cleaners. Equipped to trap the radioactive dust, the cleaners are mounted 20 feet above the ground to avoid street dust.



**MAKES DUST MISS THE TRAIN!** Dust can't get into Diesel locomotive engines to damage bearings and moving parts when Air-Maze engine intake filters are on the job. They reduce wear, lengthen the time between overhauls, won't "unload" collected dirt into engines.



**TOPS WITH JETS!** Leading jet plane engineers use Air-Maze liquid filters for fuel and oil lines. Designed to meet the high performance standards of jets, Air-Maze liquid filters remove dirt and foreign particles from the fuel, keep jets running better, longer.

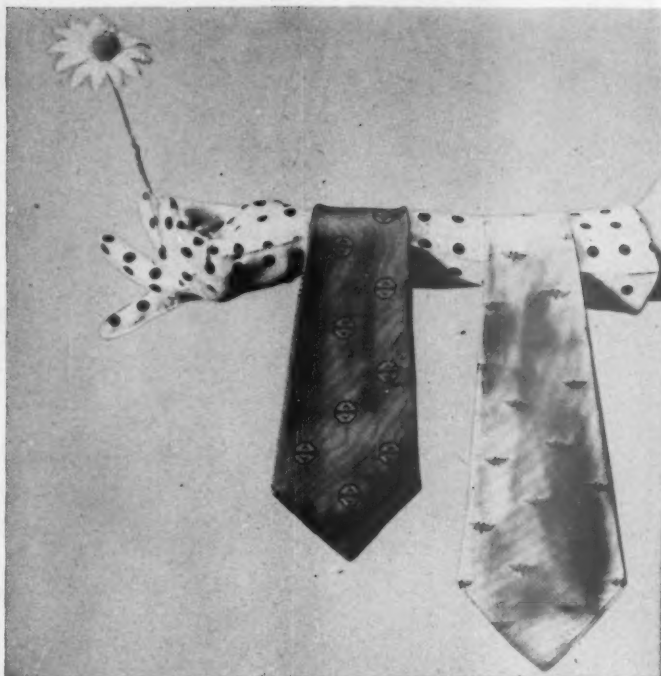
**WHETHER YOU BUILD OR USE** engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids—the chances are there is an Air-Maze filter engineered to serve you better. Representatives in all principal cities, or write Air-Maze Corporation, Cleveland 5, Ohio.

## AIR-MAZE

The Filter Engineers

AIR FILTERS  
SILencers  
SPARK ARRESTERS

LIQUID FILTERS  
OIL SEPARATORS  
GREASE FILTERS



COMPANIES boost morale with neckties: Koppers Co. (left) and Tide Water Oil.

## Industry's Old School Tie

The old school tie, a tradition of English aristocracy, has come to roost in the midst of U. S. industry. In England, the Etonian has long been known by the stripes of his tie. Now, in the U. S., if you work for Socony-Vacuum Oil Co., you'll be spotted for your blue silk tie decorated with a pattern of flying red horses. The promotional idea comes from G. S. Harvale & Co.

Harvale started four years ago, when two young men, both out of the Harvard business school, bought a second-hand machine and started turning out knitted school ties. Private schools and colleges in the East, like their English "cousins," had long used ties incorporating school and club colors. But the supply had been cut off when the English knitting machines were destroyed during the war.

Harvale's first big order was for 100-dozen knit ties for the Harvard Varsity Club. The company soon branched out into special silk ties for clubs and fraternities. Operating on a shoestring, with almost no overhead, the partners piled up gross sales of \$25,000 in the first year.

The trouble with this specialized necktie field, they discovered, was that

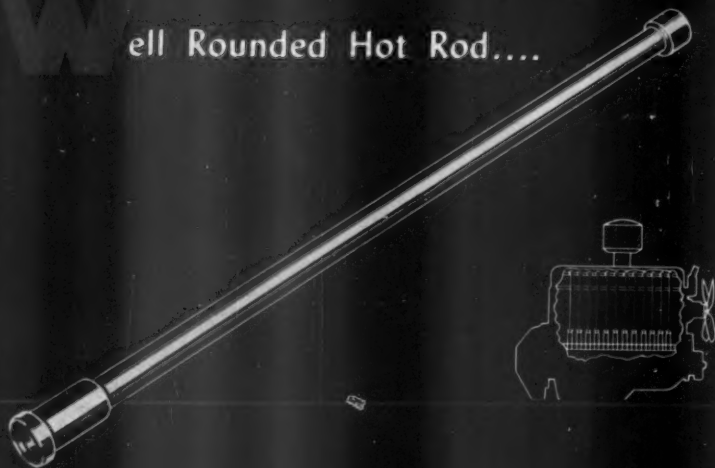
it did not offer enough potential growth. They wanted to branch out, but not into the general neckwear business. In time, they hit upon the idea of a "school tie" for businessmen. The flying red horse was the first. Socony-Vacuum was delighted, and placed an order. A few months later 1,000 flying red horse ties were presented to Socony employees at an anniversary dinner.

To date, more than 35 companies have been sold on the idea, and they've been sold more than 50,000 ties. Harvale says the neckwear is successful because the companies take it seriously. They're not interested in gag or stunt ties. They feel that a neat company tie, popular among employees, makes for unity and morale.

There are three styles of ties: (1) a tie of jacquard silk in which a figure is woven into the fabric, (2) silk and rayon print ties, and (3) solid color ties with a trade mark or crest painted on the tie. Prices range from \$1.25 to \$6.50, depending on quantity and quality.

Whether a company gives or sells the ties to employees, they still make good morale boosters. As Harvale quips: "It's the tie that binds."

Well Rounded Hot Rod....



## SHARON\* SPECIALLY FINISHED STEEL IMPROVES VALVE PUSH ROD STEM

One important manufacturer in the automotive industry was encountering difficulty in the fabrication of the hollow stemmed valve push rod. The narrow strip steel resisted efforts to form it into the required round.

Sharon Steel engineers solved the problem without changing the methods or the machinery. They

discovered the steel tended to slip during forming. By a special process they were able to dull the finish of the steel enough to stop the slipping and cure the ailment.

Sharon engineers are constantly in the field working with manufacturers in a continuous effort to produce better steel products at lower costs.

\*Specialists in STAINLESS, ALLOY, COLD ROLLED and COATED Strip Steels.

### SHARON STEEL CORPORATION

*Sharon, Pennsylvania*

DISTRICT SALES OFFICES: CHICAGO, ILL., CINCINNATI, O., CLEVELAND, O., DAYTON, O., DETROIT, MICH., INDIANAPOLIS, IND., MILWAUKEE, WIS., NEW YORK, N. Y., PHILADELPHIA, PENNA., ROCHESTER, N. Y., LOS ANGELES, CALIF., SAN FRANCISCO, CALIF., MONTREAL, QUE., TORONTO, ONT.

For information on Titanium contact Mallory-Sharon Titanium Corp., Niles, Ohio

SHARONSTEEL

# TOUGH!

## Non-splintering U. S. Royalite



Kiddy Car

... stands up to a rugged home life!

Bang 'em, kick 'em, wet 'em down with a hose, toys made of U. S. Royalite can take it!

This amazingly adaptable plastic is proving the solution to thousands of manufacturers' product problems.

**Worried about spiraling production costs?** U. S. Royalite may be your answer. It can be formed on low-cost tools in intricate and deep-drawn shapes.

**Taking losses** because of rough production line handling or shipping damage? Tough U. S. Royalite is highly resistant to impact.

**Are costly finishing and coloring operations** eating up dollars? U. S. Royalite is available in sheets *prefinished* and *color-permeated throughout* to your specifications.

**Analyze your products** against the many advantages of U. S. Royalite check-listed below. Let the engineering staff of the United States Rubber Company show you how you may improve your products and cut production costs with adaptable U. S. Royalite. Write Dept. BR-1.

### CHECK LIST of U. S. Royalite advantages

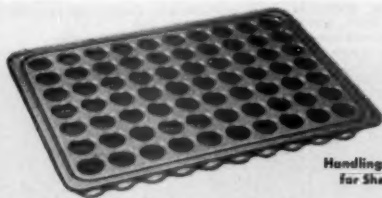
- ✓ Standard or Flame-resistant
- ✓ Lightweight
- ✓ Tough
- ✓ Non-splintering
- ✓ Non-warping, non-corrosive
- ✓ Impervious to oils, most acids, alkalis
- ✓ Highly resistant to impact
- ✓ Waterproof, stainproof
- ✓ Easily formed on low-cost tools
- ✓ Prefinished to your specifications
- ✓ Color-permeated throughout
- ✓ Available in sheets
- ✓ Stable under changing atmospheric conditions
- ✓ Exceptional electrical insulating qualities
- ✓ Low rate of heat conductivity

## U.S. ROYALITE

TOUGH PLASTIC PRODUCTS



Toy Boxes



Handling Tray for Shells



Stadium Seat



UNITED STATES RUBBER COMPANY

2638 NORTH PULASKI ROAD • CHICAGO 39, ILLINOIS





PLYWOOD SAMPLES are part of the Portland Oregonian's exhibit designed to put . . .

## Lumber on Women's Page

Usually, you won't find much lumber on the women's page of a newspaper. The Portland Oregonian doesn't see it that way, though. After all, it reasons, women are homemakers, and a lot of homes are made of wood.

That's why Hostess House—the display room the Oregonian's women's department maintains in part of its building—ran a six-day spring showing of plywoods and other woods this year. The show drew over 1,000 visitors a day. They came in couples, too, with husbands docilely in tow.

• **Other Shows**—Hostess House has been running shows for more than three years, usually on items more feminine than plywood. One on the art of table-setting was an overflow success; other shows have covered everything from tropical fish to agates.

The plywood show was labeled "Wood for Western Homes." But you didn't have to be a potential home builder to enjoy it. Displays were geared to purses of all sizes, and to domestic needs as small as a minor remodeling or repair.

A sandwich technique was used to display the 50-odd types of plywood, solid wood, hardboard, softboard, and plastic surfaced plywood. Each specimen was represented by a 4x8 ft. panel; they were fastened in pairs, sandwich-fashion, at the top. The panel presentation was adopted because it would be easy to put the whole show on the

road, in case anyone else wanted to use it.

Draped over and around many of the panels were latest-type upholstery materials, floor coverings, and drapes. Even paintings and sculpture were spotted here and there. That helped the nesting couples to figure out how the wood fitted in with their pet decoration scheme. Kitchen and wardrobe models were also on display, with how-to-build-them plans available for some. Photographs were on tap of homes with plywood walls, storage units, and room dividers.

• **No Names, Please**—Hostess House—guided by the Oregonian's women's department editor, Kay Bollam—makes no charge for space for the exhibitors it invites. It goes very lightly on commercial plugs; stores that carry the goods on display aren't mentioned. A phone call will pry loose this secret, though.

Another Hostess House quirk: The Oregonian never mentions when free food samples will be on tap, lest legitimate spectators be trampled by free lunch moochers.

The Oregonian boasts that Hostess House and its promotion is run by editors, not by the business department. It thinks that circulation gains reflect the wisdom of the policy. Mrs. Bollam calls the whole display setup "the physical presentation of the news." She's sure the readers like it that way.



THESE HANDS ARE READY  
TO HELP YOU AT

# Dutron

A Specialized Packaging Service  
for many industries

Dutron was organized several years ago as a company specialized in meeting specific packaging needs for many industries. The company is devoted exclusively to this packaging operation and engages in no manufacturing of its own. Complete facilities are available for all types of government and military packaging as well as final inspection facilities on the premises.



Packaging operation using AXS 1222; JAN P 116 Gov. spec. method IAB.

Packaging line for Grade C wrap and wax dip.



We can do these things for YOU too!

- Collection of parts from outside suppliers.
- Warehouse storage facilities.
- Package engineering.
- Assembly.
- Wrapping, packaging, crating.
- Storing of packaged parts.
- Safety for military requirements.
- Shipping by all means of transportation.
- Drop shipping and billing.
- Direct shipment of Government packaged material.

We'll gladly send descriptive brochure.

CALL, WIRE OR WRITE

**Dutron** CORPORATION  
CASSOPOLIS, MICHIGAN

## BUSINESS HISTORY



PLANE AND CHUTE that worked are checked by IBM art man Keith Martin.

# Leonardo Jumped the Gun On Technology by 400 Years



WINDUP CAR with gears got into operation 400 years after Leonardo designed it.



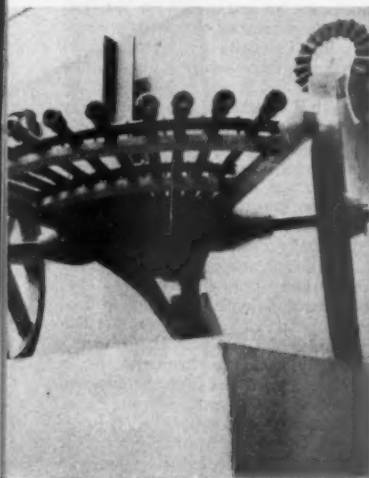
MACHINE GUN fired 12-shot salvo, while

If Leonardo da Vinci had had a compact powerplant and hard metals, much of the world's technology might have been about 400 years ahead of itself.

The man who painted the Mona Lisa and the Last Supper and was a poet, composer, architect, city planner, botanist, anatomist, also was one of



PILE DRIVER improvements cut labor needs, started Leonardo in engineering work.



12 barrels were loaded and 12 were cooled.

the most ingenious engineers and industrial designers in history.

• 500th Anniversary—This week marks the 500th anniversary of Leonardo's birth. As part of the celebration, the fine arts department of International Business Machines Corp. is opening a show of models of Leonardo's designs and inventions at New York's Metro-



## Operation Snowfall

### D-DAY MINUS ONE

Over 8000 paratroopers stand poised for the start of Operation Snowfall—the largest winter air-borne maneuvers ever held.

At the jump area — near Camp Drum, N. Y.—Signal Corps Officers ready the vital air-ground communication equipment.

But, final hook-ups require unit-to-unit electrical connections that lock tight and protect against accidental disconnection during use.

None, however, are available from the Post Supply Depot, and at 4:45 P.M. an emergency call is made to the Graybar office at Syracuse 90 miles away.

... Within an hour, Graybar had shipped the needed Twist-lock devices. On arrival at Camp Drum, they were immediately installed permitting the use of equipment that might otherwise not have functioned as an integral part of the test.

● Though this particular order covered a standard wiring item and amounted to only a few dollars, it indicates the kind of service you can expect from Graybar.

108 strategically-located Graybar offices make ordering easy — regardless of your location. Skilled Graybar staffs will help you work out job costs and specifications . . . lend a hand in solving technical problems in any electrical field.

Graybar distributes more than 100,000 electrical items — reliable, well-known lines you know and respect. Make your next order for electrical items read "via Graybar"—see for yourself why companies of all kinds depend on Graybar for everything electrical.

244-24

GRAYBAR ELECTRIC CO., INC.

Executive offices: Graybar Building, New York 17, N. Y.

Call Graybar first for...





Here's a  
**New Lease on Life**  
 for wearing equipment!

**TAKE POWER SHOVELS, FOR EXAMPLE:** As a sidewalk superintendent you've doubtless watched these big machines at work. The shovel buckets particularly lead a rough life, digging, scraping, and pounding. Steel alone can't take it... the teeth that bite into earth and rock, the sides and bottom dragged over abrasive rubble wear out too fast *unless they have the added protection of hard-facing!* Bucket life is tripled by Stooddy Alloys.

For most wear problems in all types of industry Stooddy Hard-Facing Alloys have an answer. We'd be glad to tell you what we have learned in a quarter century about hard metals in *your* business.

Ask your local Stooddy dealer for information—check  
 "Welding Equipment and Supplies" in your Classified  
 Telephone Directory—or write direct! Comprehensive  
 literature is available.

## STOODDY COMPANY

11931 East Slauson Avenue, Whittier, California

politan Museum of Art. Some of the models were copied from machines that were actually built at the time Leonardo planned them. Others were constructed for exhibit from the thousands of instructions and diagrams that appeared in his voluminous notebooks.

The show demonstrates that Leonardo ranged from aeronautics, automobiles, tanks, and machine guns, to a printing press, gear transmissions, pulley systems, light projectors, aerial bombs, and construction equipment embodying many of the principles of present-day machines.

The man behind the models is a Leonardo expert named Robert A. Guatelli. He started out as an engineering student in Italy and somewhere along the line got sidetracked to Leonardo. (In Italy and elsewhere, too, Leonardo is a full-time field of study involving hundreds of scholars and a vast literature by and about him.) In 1938 the Italian government gave Guatelli some money to build a set of Leonardo models for Italy's exhibit at the New York World's Fair.

• **Bomb Victim**—When the war broke out, Guatelli and the models went to Tokyo where Guatelli, but not the models, survived an air raid that hit the Italian embassy. About five years ago he came back here and scraped together enough money to build a brand-new set of 56 models. IBM bought the lot and hired him last year.

It isn't so amazing that a Renaissance man like Leonardo was interested in everything; there were plenty of men like that. But it is a wonder that he was a real expert in practically every field of human endeavor, even some that no one else knew much about until centuries later. One of his greatest machines was a genuine airplane propelled by human power flapping the wings. One story has it that the plane was actually flown successfully. Leonardo built a parachute that he later used to jump from the Tower of Pisa. He devised a machine gun that fired 12 shots at a time for one Italian military leader. When the warrior's opponent came to Leonardo for a weapon to fight back with, he designed a cannon fired by steam power.

• **Spring-Driven**—Leonardo's automobile was a spring-driven affair that the driver had to wind up every hundred yards or so.

Many of his designs never got into production during his lifetime. A differential or a gear transmission wasn't of much value unless somebody had an engine. But his water pumps, pile drivers, excavators, and bridges were built and used for centuries.

Kettering, Edison, Ford, and the Wright brothers finished much of what he started, but nobody ever started so much.



In the critical Cigar Conditioning Room of D. W. G. Cigar Corporation, Lima, O. (home of such famous cigars as R. G. DUN, EL VERSO, and SAN FELICE), walls are  $\frac{1}{4}$ " "Century" APAC. This asbestos-cement structural board is also used in the Cigar Machine Room and Tobacco Conditioning Tunnel.

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humidity must be accurately controlled,"*

*says J. P. Weller, Master Mechanic —*

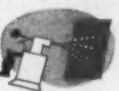
No nurse in an infants' ward ever guarded her charges more jealously than D. W. G. Cigar Corporation watches over the thousands of quality cigars they turn out every day.

So when J. P. Weller, D. W. G.'s Master Mechanic, chooses "Century" APAC for the walls of the important Cigar Conditioning Room, you can take his word that APAC is an ideal material where temperature and humidity are accurately controlled.

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PROF. A. H. COLE thinks that by restudying business history and contemporary views of it economics can begin . . .

## Throwing New Light on the Businessman

Economists and historians have pieced out a wonderful picture of how business developed and how it operates—but they have done it largely without consulting the businessman.

Economic treatises, both historical and current, focus on such things as credit, resources, technological developments, markets, and transportation. But in most economic theory, the men who fit all these things together are simply stock characters. The theories make no allowance for individual differences.

• **Something New**—This is beginning to change. Scattered through the academic world are historians who think that a lot of credit for developing the U. S. economy must go to pioneer businessmen.

Similarly, economists here and there are turning from statistics and mathematical models to take a look at the people—businessmen and customers both—who make the decisions that keep the economy going.

Leading the movement is a small group centered at Harvard University. Its 10 or a dozen regular members are very loosely organized under the for-

midable title of the Research Center in Entrepreneurial History. Their aim, as outlined by Prof. Arthur H. Cole, is to find out what makes the American businessman tick, and how his ticking has influenced the course of American history.

Cole focuses on the entrepreneur—basically the man who makes the decisions in business. But what Cole is selling essentially is a viewpoint. His basic proposition is: The businessman is not an automaton responding in fixed ways to changes in profits, interest rates, and supply and demand factors. Instead, the businessman is a creative personality who has made a major contribution to the country.

• **Businessman's Role**—Cole sums up this way:

"At the start of the 19th century the American businessman was inefficient and slow-moving (the much-touted Yankee merchant was often lucky if he made three of four sales a day). He was ill-informed as to what was going on, strongly inclined to resist anything new, and guided by pirate's ethics.

"Today he is highly skilled, notably efficient, makes sophisticated decisions,

and, most important, he is conscious of responsibility to society."

• **Backtracking**—Cole splits his group's job into two parts. First, to trace the development of the "business scientist" over the past 150 years and identify the things that directed his growth. Then, to determine just how he, in turn, perhaps more than any other single agent, made U. S. industry and commerce grow.

That's a broad franchise. It involves going back over most of the raw material of U. S. history, combing over the ground covered by hundreds of historians over many generations. More than that, it involves digging into the usually none-too-revealing—and sometimes carefully camouflaged—records and biographies of hundreds of individual businessmen.

• **Origins**—The impulse to send someone around asking if the businessman is human came to Cole, who is librarian of the Harvard business school, when he noticed that courses in business history put little or no emphasis on the part played by the businessman. There were plenty of documents on cold economic development. There was plenty

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**" . . . Those clues could be used to encourage economic growth in underdeveloped areas . . . "**

**THE BUSINESSMAN starts on p. 86**

of evidence that business was developing from an art to a science. But the businessman himself got little more than a mention.

Cole decided to dig deeper into the businessman. That meant (1) the massive job of overhauling history to substantiate his thinking, and (2) a revolution in fashions of thinking. If Cole hits pay dirt, the academician's whole style of thought—the approach used by generations of scholars until it has become a classical tradition—has to be overturned.

• **Takeoff Point**—Cole found a start in the thinking of the late Joseph A. Schumpeter, well-known Harvard economist.

Schumpeter proposed that the individual is the agent of progress—not government, or the priestly class, or any mysterious cosmic force. Confronted with a problem, the individual makes a "creative response." He makes a decision. Progress is the accumulation of those creative responses.

As soon as he started to poke around, Cole found that there were people working independently all over the world who had ideas similar to his. When he set up the research center, three years ago, others were eager to join him.

Finally, the Rockefeller Foundation was attracted. The reasoning here: If you understand the American businessman, you'll have some real clues as to how economies develop. Those clues, perhaps, could be used to encourage economic growth in the so-called "underdeveloped areas."

If you could transplant some of the thinking of American businessmen, you might be able to speed the development of, say, Brazil or Indonesia. The foundation has thought enough of the possibility to grant the center \$50,000 in the last three years.

• **Here and Abroad**—Today the Research Center is still groping, in one sense. It has done a considerable amount of research in two directions: going back into history to study individual American businessmen, and comparing American businessmen with their counterparts in France, Egypt, and other countries. The contrasts with other countries shed at least as much light on the United States businessman as does history.

Still to be developed—and it will take a lot more research—are the basic theories as to how businessmen think

and work—and how they've influenced U.S. history.

• **Spreading the Word**—Cole has developed two lines of attack. First, he reaches out to other universities to spread his viewpoint. Where he finds an economist gearing up to do a biography of, say, Jay Gould, the railroad financier, Cole asks him to do it with the Cole viewpoint in mind. The result: Cole is gradually mobilizing a considerable group of scholars who are at least exploring his ideas.

At the research center itself, Cole has started a series of projects. Five of them have either jelled into books now, or will shortly:

• A collection of biographies of businessmen called *Men in Business* already has been published. The book states the center's philosophy in research, then goes into the histories of such men as Frank Julian Sprague, the father of electric traction in the U.S.

• A study of the growth of the electrical manufacturing industry through the 19th century, with emphasis on the lives of men like Edison and Westinghouse is in the works. Prof. Harold C. Passer of Princeton is basing it on the idea that the growth of the industry wasn't haphazard, that it was shaped by the characters of the men who founded it.

• The thinking of the U.S.' railroad leaders between 1840 and 1890 (the era before the Interstate Commerce Commission) is being explored by Prof. Thomas C. Cochran of the University of Pennsylvania. Cochran has found that, basically, the railroads of a hundred years ago were organized like military units—and the generals who ran them expected complete loyalty. In fact, the railroad leaders simply couldn't understand how the men under them could be loyal to both the road and a union.

• A study of the development of Brazilian industry done by Dr. Stanley J. Stein of Harvard will be out in about a year. Stein spent nine months in Brazil studying the textile industry, is working with other students who are exploring other industries. This work may well set a pattern for the center's studies on underdeveloped economies.

• What their contemporaries—particularly intellectuals—thought of such businessmen as Vanderbilt, Astor, Morgan, and Ford is the subject of a fifth study. Basic idea: to find yardsticks by which people judge the businessman and his performance—and to see how the yardsticks change over the years.

• **Informal**—The center has other projects—and there seems to be no end to the jobs that might fit into its operations. For an organization with such ambitious plans, it is surprisingly

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**Make More Money IN OKLAHOMA**

**"... It may take years to determine what that viewpoint is worth ..."**

THE BUSINESSMAN starts on p. 86

casual. Headquarters is a floor of offices donated by Harvard. Three flights up in Holyoke House, a creaky building just off Harvard Square.

The offices are occupied infrequently, since most of the active members hold regular lecturing or research jobs at various universities around Boston.

Members qualify by interest only. There are no dues, no initiation fees.

When the members do get together, it's usually over a lunch at the faculty club. There's no formality, but the discussion tends to hold to one subject—the entrepreneur. Frequently, the meetings end up with the reading of a paper done by one of the members.

• **How Much Scope**—How far can the research center carry its projects—and how far can it go with the idea of regarding the businessman as a human being?

Cole is optimistic in looking ahead. There's a steadily widening interest in the idea. Already two similar centers have been set up—one at Australia's National University in Canberra, the other at the University of Chicago. The Ford Foundation is sponsoring the Chicago group, which was started as an offshoot of the Harvard center by Prof. R. Richard Wohl.


A second alumnus of the Harvard group, Prof. Cochran, also has begun a project for the Ford Foundation. He will try to find out how the enterprising businessmen of Norristown, Pa., shaped the economic growth of their town and how much was contributed by Philadelphia money and initiative.

• **Looking Ahead**—Cole is mapping out a five-year program for the Harvard center that would expand the scale of its research year by year. But this sort of planning is one of the most difficult of his jobs. For in its nature his investigation has no fixed, specific target—as you might have in the research to develop, say, a new group of steel alloys.

Rather Cole has a viewpoint, but little more. It may take years of intensive work to determine what that viewpoint is worth to historians. If enough of them take it up, they will fill in what now looks like a blank spot in the canvas of United States history.

Still more important, if Cole's viewpoint holds, economists will have a much better understanding of what makes businessmen tick today. That, as Cole sees it, may be the biggest contribution his group will make.





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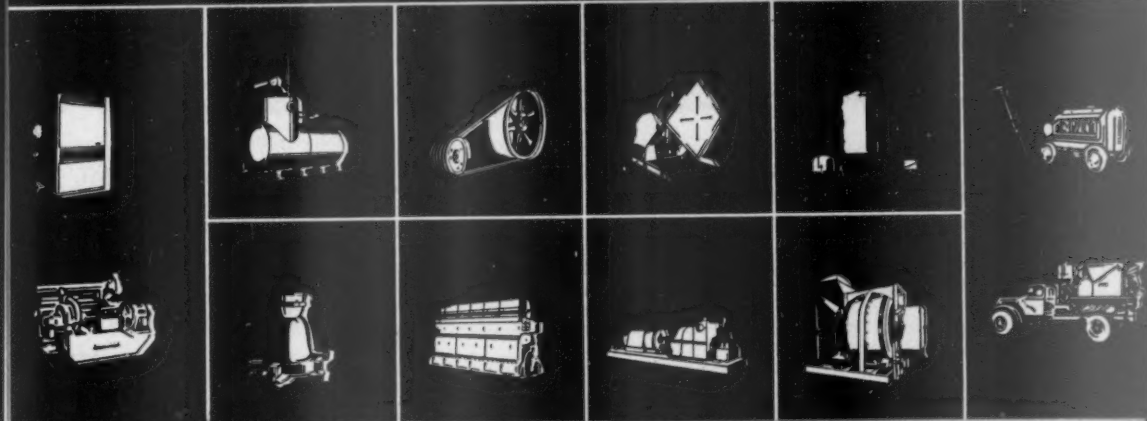
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## REGIONS



### TRANSPORTATION

Heavy industry on the Illinois side of the Mississippi will get

better waterway facilities when the \$38-million Chain of Rocks Canal is completed late this year. New harbor is at lower left.

## St. Louis Industry Hits \$1-Billion Growing Streak

A billion dollars makes a big splash when you spend it all in one place, even if you spread it over six years. And even if the place is as big and as solidly established as the St. Louis metropolitan area (1.7-million population in two states).

It's no wonder then that the post-war industrial expansion of St. Louis and its neighbors has stirred up the



## METALS

Among the metals plants are (left) Dow Chemical's magnesium rolling mill at Madison, Ill.,

equipped at \$30-million, and Granite City (Ill.) Steel Co.'s mill, where a \$40-million expansion will be completed in 1953.



## COMMERCE

Opposing forces can be seen in (left) Brown Shoe Co.'s move from the city to

suburban Clayton, Mo., and (right) the 600-car parking garage built in the downtown center by Stix, Baer & Fuller, department store.

local folk. On every side they see new factories going up. And they can't escape the consequences of the fast growth: housing pressure, transit congestion, crowding of schools and stores, demand for more sewers, water lines, and other services.

The current growth may have hit its peak. More than \$350-million was invested in industrial and utility expansion during 1951. That's a record for any year in the region's history, and it will be hard to match. Last year's growth alone is expected to create at least 12,500 new jobs. Little of it is temporary, though a lot is defense-inspired.

Pictures on these pages and on page 94 show some of the new plants that have recently been completed or are

still under construction. Sites range from Clayton, Mo., to the west of St. Louis, to Madison and Granite City, Ill., to the north and northeast.

The population growth that's generated by industrial expansion may well top the 350,000 gain chalked up between 1940 and 1950, St. Louis people think. The Metropolitan area now ranks ninth in the country.

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RESISTING CASTINGS

## ST. LOUIS GROWTH Starts on page 92



**OIL** Shell Oil Co. is spending \$42½-million to raise daily production at its Wood River (Ill.) refinery by nearly 50%.



**CEMENT** Missouri Portland Cement Co. has finished a five-year program at St. Louis that boosted capacity to 4½-million bbl. of cement a year.



## Convalescent

Martinsburg, W. Va., is still a distressed area. But new plants are moving in, jobless rolls are shrinking.

For an officially distressed area, Martinsburg, W. Va., is doing rather well these days. And doing it without any very noisy drum-beating, too. The city and its environs are still way above the 6% unemployment figure that qualifies it for the distress list. But the roll is shrinking, and Martinsburg is convinced that it will soon shrink a lot more.

• **Woolen Mills**—On the dark side is the fact that Martinsburg's people—over 15,000 in the city, thousands more in the surrounding area—are overly dependent on the woolen textile industry. The industry has had a lot of lean years. One big mill in Martinsburg gave up the ghost in 1948. Another is closed temporarily now, which means no jobs for another 525 people.

The chamber of commerce figures there are 600 unemployed, besides the temporarily jobless mill workers. Another 600 Martinsburgers travel the 26 miles to Hagerstown, Md., in order to work. Presumably they'd rather work nearer home. Against these jobless and near jobless, the chamber counts 5,184 jobs in and around the city. On the basis of these figures, 16% of the labor force is currently out of work.

• **Newcomers**—The picture was a lot grimmer before the chamber decided to do something about it. As a result of its efforts, one new factory is already in operation, five others have signed contracts to move in. They aren't big plants—total jobs should run about 440—but they'll take a substantial bite out of the unemployment rolls.

The chamber sees other rosy aspects:

• It's edging Martinsburg away from excessive dependence on soft goods, nearer to a goal of a balanced mixture of hard goods.

• The new factories have been secured without the extreme offers of free plant, low rents, free water, or tax abatements which some distressed areas offer. The chamber says it's willing to be reasonable, but not to give away the moon. What it can offer is good transportation, ample power, a fine water supply, and good labor.

On the labor point, the chamber is particularly proud. Here's why: First of the new plants to come to Martinsburg was the Rite-O Co. This outfit makes manicure implements, mechanical pencils, and tacks. Its plants were originally in Jersey City.

In wooing Rite-O, Martinsburg used

Another



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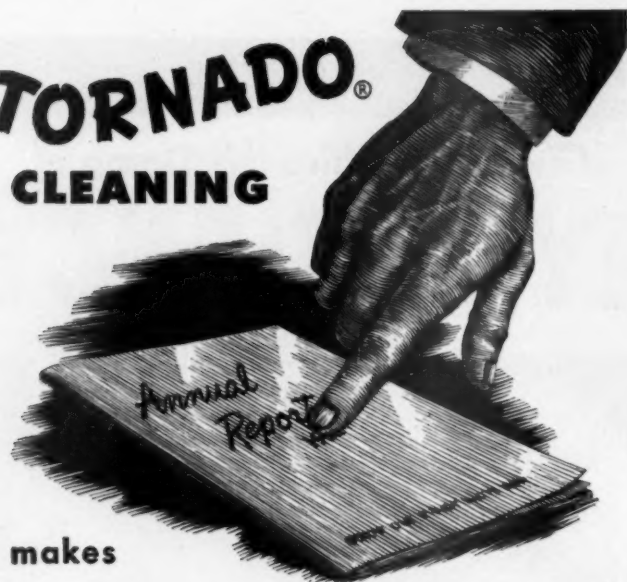
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# BREUER ELECTRIC MFG. CO

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the same quiet method it has tried on other companies. As soon as the chamber heard that the Jersey City outfit wanted to move, it mailed a prospectus to Rite-O president Stanley Weinstein. The deal was made, but the problem of trained labor remained.

• **Quick Learning**—Rite-O moved into part of a closed woolen mill early this year. As personnel it brought along only seven foremen. The chamber sent out a call for people who wanted to learn new jobs. So eager were the apprentices, so willing to work overtime and holidays, that Rite-O was able to cut the training period to six weeks, instead of the expected three months. The company is already in production, will employ 200 eventually.

Other companies already signed up to settle in Martinsburg are:

• Martinsburg Vencer Plant, with 50 jobs.

• Martinsburg Face Vencer Plant. This company is now remodeling an old wagon works, idle for 20 years.

• Panel Windows, Inc., with 15 employees.

• W. S. Frey Co., with 25 jobs in a quarrying operation.

• A du Pont explosives plant, which will provide construction jobs for 200, steady employment for 150.

Several other companies are now negotiating for spots, according to Nelson Clarke, general manager of the chamber.

## REGIONS BRIEFS

River terminals built by TVA are shifting to private operation. In February, Commercial Barge Lines, Inc., took over the Guntersville (Ala.) terminal. Others now licensed for private operation are at Knoxville and Chattanooga, (Tenn.) and Decatur, (Ala.)

31-million acres of undeveloped mineral deposits and timber were the big attraction when Maine's Piscataquis Iron Works was bought by General Chemical Div. of Allied Chemical & Dye Corp. Allied sees the tract as a future source of pyrrhotite, to supplement supplies of elemental sulfur.

Gas pipeline will be started soon to link the Gulf Coast with existing lines near Huntington, W. Va. The line will be built and operated by Gulf Interstate Gas Co. Ohio Fuel Gas Co. will get the gas.

Guide to Dixie: 3,000 large plants are listed in the Southern Industrial Directory, released by the Southern Assn. of Science & Industry, Atlanta. The directory is described as an encyclopedia of business activity in the South.

## DeVilbiss



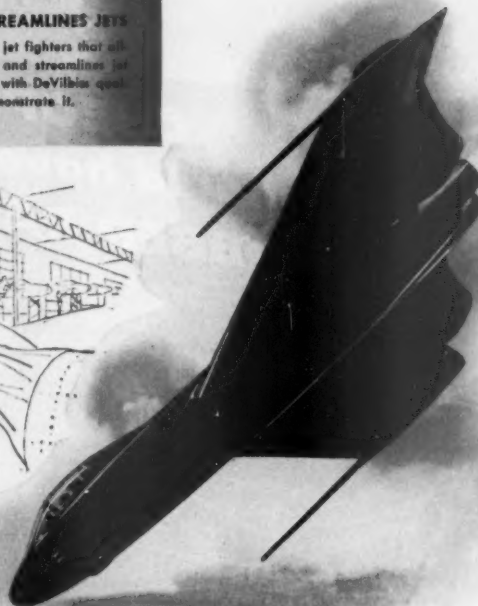
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**A streetcar's tail swings 'way out on a sharp turn.** White stripes (painted by DeVilbiss spray guns) tell *how far*; let pedestrians and motorists stay clear! DeVilbiss spraying is faster, more economical!



**Home spray equipment** makes hobby and household painting easier, more enjoyable; saves up to 1/3 of painting time on houses, fences, farm equipment. Always does a better job for home owners, farmers!



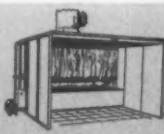
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is shown by this  
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**Today—in just one month**—you could move that same astronomical tonnage with a “rubber railroad” designed by the G.T.M. — Goodyear Technical Man. For one of these systems of interconnected conveyor belts can move up to 8,500 tons each hour—the bulk

equivalent of Pharaoh's Pyramid every month of 24-hour-a-day operation.

**Proved years ago**, “rubber railroads” have carried huge tonnages over long distances. For example, when Shasta Dam was completed, the cost of moving all the aggregate for its massive concrete bulk figured at a mere fraction of the cost-per-ton mile of any other available transportation—thanks to the 10-mile “rubber railroad” installed under the supervision of the G.T.M. But that's only part of the story.

**Cost analysis** showed that the system had saved enough to pay for

its own installation in just three years. And the G.T.M. found on examination that the belts had years more service left in them—enough so that the belting was sold for use on still other projects!

**Detailed figures** on the economies others have found in using conveyor belts—either multimile systems or shorter, in-plant conveyors—are yours for the asking when you consult the man who knows conveyors best. You'll find him by writing the G.T.M., c/o Goodyear, Akron 16, Ohio.

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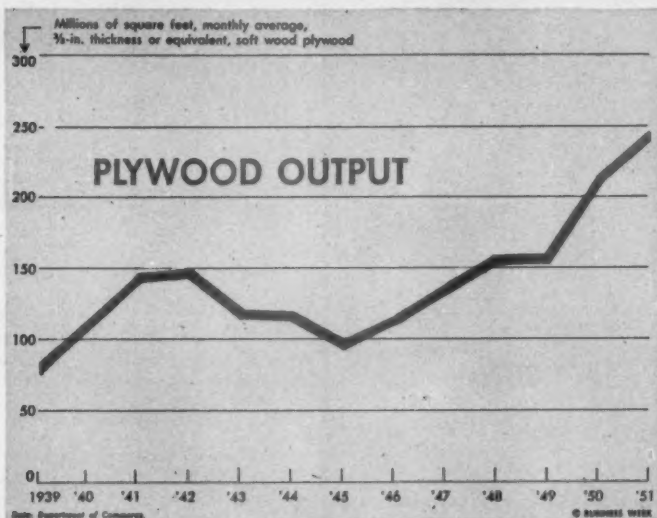
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# COMMODITIES



## Plywood Aims at Stability

U. S. Plywood price guarantee checks the ups and downs. The idea: to attract more users for today's and tomorrow's greatly expanded output.

Take a business that has a productive capacity far above anticipated sales—and yet is worried about price rises that might kill consumer interest. This paradox is the plywood industry. Something's being done about it, though, on two fronts: holding the price line and stimulating demand.

United States Plywood Corp., largest single handler of plywood, stepped in with a price guarantee about a month ago, just as prices were reported ready to jump. U. S. Plywood assures carlot buyers that the current \$87.50 per 1,000 sq. ft. price, f.o.b. mill, will hold through next August.

"If we hadn't given that assurance, the price would have been up to \$97 again by now," says Lawrence Ottinger, president of the company.

• **Policy to Continue**—Ottinger says the results so far have been satisfactory. Other plywood producers were prevented from going ahead with price increases; some new orders have come in.

He emphasizes that the move was not a distress sign—U. S. Plywood had a 60-day order file when it was announced, and that's as far ahead as most mills care to book.

According to Ottinger, the price guar-

antee is aimed squarely at stabilizing a volatile market. In fact, Ottinger adds, it's not even a one-shot policy. When the present guarantee period ends Sept. 1, U. S. Plywood expects to adopt a permanent policy of assuring prices for 90 days, subject only to an escalator clause covering labor costs. With normal markups all along the line, the stabilizing of mill prices also serves to settle prices charged by jobbers and dealers.

• **Fever Chart**—A curse of the plywood industry has been the fluctuation of prices. By contrast, competitive commodities—gypsum board, metals, regular lumber—are relatively constant in price. So architects say, "I can't afford to specify plywood because I don't know what the price might be when it comes time to buy." For the same reason, contractors shy away from bidding on a job involving plywood.

Plywood's price gyrations in the past six months make a good case for this kind of doubt.

Anticipated government buying failed to materialize last summer, and civilian business tended to lag far behind output. The mills didn't want to alienate their source of supply, so they kept buying logs and pouring plywood

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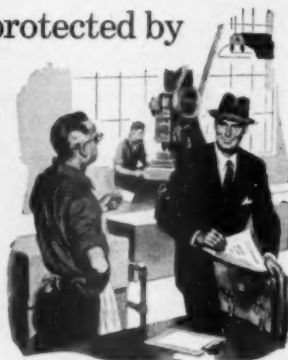
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The Employers Mutuals Team



CARTOONS are used by the Douglas Fir Plywood Assn. to promote a "Room for Improvement" contest opening this month.

into inventory. Something had to give, and it did.

Prices softened early in the fall. From \$97 per 1,000 sq. ft. for a standard quarter-inch panel, the price skidded all the way down to \$75. Mills went off the three-shift basis (some are still on two shifts), and producers began living on inventory. It wasn't till January that prices firmed. In two jumps they went back to \$87.50 and \$88.

Even then, though, jobbers and dealers were in no hurry to order ahead. They knew they could get what they wanted when they needed it, and they ordered on a week-to-week basis. Optimists were also hoping prices might sag again.

U.S. Plywood says the six-month price guarantee encouraged buyers to order five weeks ahead, on the average, instead of only one week.

• **Overproduction**—Men in the business attribute plywood's price antics largely to a "charge what the traffic will bear" attitude by some producers. "At \$87.50 there should be a fair margin, a satisfactory profit, for everybody," says Ottinger. He's concentrating heavily on building up a long-haul market to handle the industry's enlarged capacity.

Last year the industry turned out 2.7-billion sq. ft. of fir plywood (chart shows production of all softwood plywood). That was a record, twice the output of as recent a year as 1946. And it's a rate of about 53-million sq. ft. a week. Already, the 1952 weekly average is higher; a week late in March produced more than 58-million sq. ft.

Expansion of capacity is continuing, though it's tapering. Right now, capacity is about 34-billion sq. ft. a year; by the end of 1952, it'll be 4-billion sq. ft. Meanwhile, 1952 sales, includ-

## EMPLOYERS MUTUALS of WAUSAU

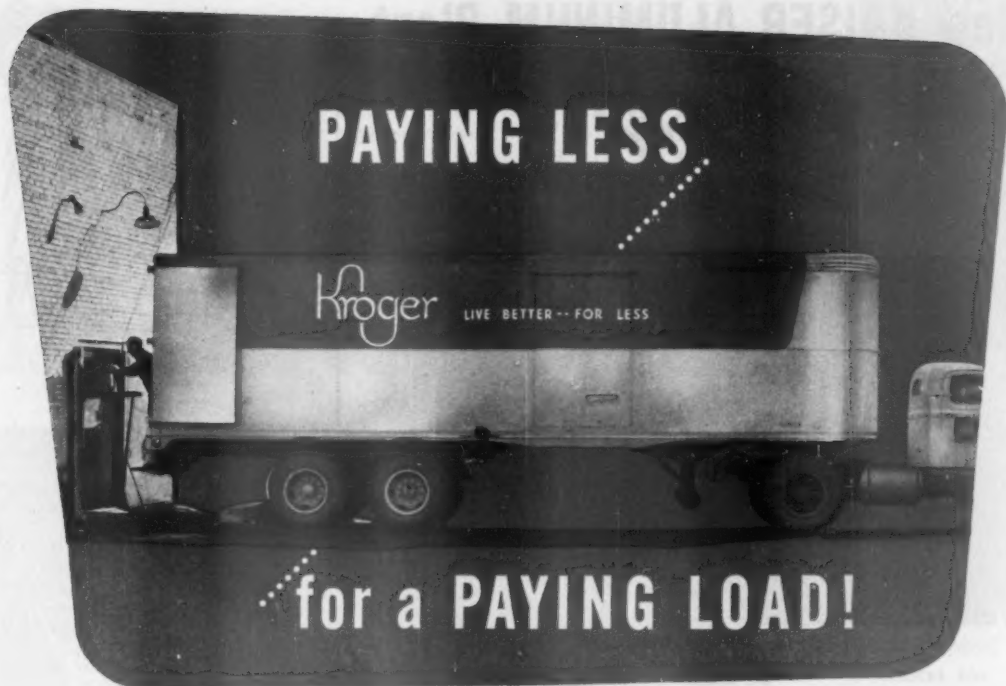
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## To the Executive

## Planning for TOMORROW...

**Aluminum trailers** weighing as much as 4000 pounds less than standard steel models mean increased payloads, fewer trips. That's why one of America's great food distributors, the Kroger Company with more than 1100 aluminum trailers in its fleet, adopted aluminum as long ago as 1935.

**Kroger reports** that to date not a single all-aluminum trailer purchased by them has ever actually worn out! Proof of their satisfaction is reflected in the fact that they have ordered almost 200 more of these units from the Highway Trailer Company of Edgerton, Wisconsin in the past two years.

**Highway Trailer engineers** and Kroger transportation experts work very closely in designing these trailers to meet Kroger's exacting specifications. In turn, the knowledge and experience

of Reynolds Aluminum Specialists assure both *manufacturer* and *consumer* maximum benefits from strong, lightweight aluminum.

**Kroger finds** that non-rustable aluminum cuts maintenance and service costs. High reflectivity of aluminum keeps interiors cooler... an important factor in hauling perishables. And the *saving in weight* allows greater payloads... means substantial savings per mile traveled.

**If this example** of the advantages of aluminum suggests a way to improve *your* product, call the Reynolds Aluminum Specialist in your area. He will be glad to work with you in planning and designing for your future with aluminum. Look under "Aluminum" in your classified telephone directory. Or, write Reynolds Metals Company, 2585 South Third Street, Louisville 1, Kentucky.



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CONTEST THEME is to tell why plywood is the best for home improvement.

ing 250-million sq. ft. of government purchases, aren't expected to pass 22-billion sq. ft.

• **Two Problems**—The industry now finds itself with a twofold problem:

• How to dispose of the expanded output at a profitable price.

• How to find the raw material to feed so many more mills.

U. S. Plywood thinks it has provided one answer to the first problem: Stabilize prices and you'll attract more long-range business. The Douglas Fir Plywood Assn. is cutting loose with a big promotion campaign: (1) pushing "Handy Panels" (BW—Apr. 5 '52, p40) for home craftsmen, (2) starting a sales training course this month, (3) running a \$20,000 prize contest for consumers on the theme of "Room for Improvement."

Efforts are being made to sell carpenters on the idea of using plywood instead of standard boards for nonstructural purposes, though building codes are a barrier in some localities.

• **Conservation**—The raw materials problem is also being licked. Clear-growth virgin timber with knot-free trunks is fast disappearing. The supply of such logs won't support current production, in fact. But the industry is using logs of lower quality, cutting out the knots and filling the holes. The industry is also turning to fuller utilization of so-called waste wood: the cores of peeler logs and the other leftovers.

U. S. Plywood, for example, is promoting Novoply, a hardboard made from wood chips specially made for the purpose. The company built a new plant at Anderson, Calif., last summer; production and sales are going up now. The product is competitive with plywood but is warpfree, quite fire-resistant, and better insulating. Companies also use wood chips as the center filler ply for standard veneer.

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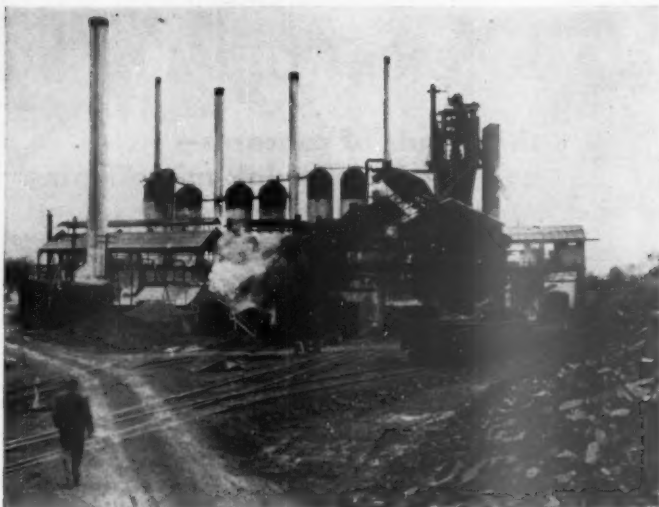
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Bassick "FLO-TILT" . . . the finest tilting and swiveling mechanism for office chairs. Tilting is controlled by long-lasting rubber encased in steel (no metal springs). This unique patented construction assures the easiest, smoothest, quietest action . . . real comfort and balance. "FLO-TILT" is the mark of true quality on a swivel chair. Used by many leading chair manufacturers.



THE BASSICK COMPANY,  
Bridgeport 2, Conn.  
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ONE BLAST FURNACE at Jackson, Ohio, has enabled Globe Iron Co. to extract . . .

## The "Gold" in Silvery Iron

For 50 years Globe Iron has prospered by turning out specialty pig that's used in foundries and steel mills. Now the family-owned plant is adding four electric furnaces.

In the last 100 years the iron and steel industry has just about completely made itself over. For the last 50 of those years the Globe Iron Co., of Jackson, Ohio, has stood perfectly still, while the profits rolled in.

Globe Iron, owned and managed by the Jones family since the day it was born, has concentrated on the making of silvery iron, a special type of pig with a nice, for-sure market. Iron foundries and steel mills need silvery iron, but there are not many companies that make it.

Globe always has more than enough takers for its roughly 200-ton-a-day production.

• **Expansion**—It has been that way for half a century. But now, to the surprise of the industry, the Joneses have decided to expand. One new electric furnace is well advanced, next to Globe's single blast furnace. And plans for three others, at Beverly, Ohio, have just been announced.

Neither board chairman Edwin A. Jones, nor his brother, president Marshall H. Jones, will say exactly what the furnaces will produce. That's typical of this closely held and close-mouthed company. The furnaces, each built for about 70-ton heats, could produce steel. But the best guess seems to be that they will make iron with a

very high percentage of silicon, much higher than the 8½ to 10% content of the silvery iron that the company is turning out today. If Globe does venture into high silicon, it will find itself up against rugged competition—unlike its present cozy field.

• **Few Producers**—There are very few makers of silvery iron. One of them is Globe's neighbor, the Jackson Iron & Steel Co. A member of the Jones clan has a substantial financial interest in JISCO.

Producers are few, but buyers are plentiful. Silvery iron is indispensable to the making of good-grade, gray cast iron. It serves as a graphitizer—that is, it causes the carbon in the mix to be evenly distributed. It's a desirable alloy in cupola operations, since its silicon is less concentrated than in ordinary ferrosilicon alloys. And its melting point and melting rate are about the same as foundry pig iron. Lately, there has been increasing use of scrap steel in cupola charges. Since scrap contains almost no silicon, it has been necessary to use more silvery iron.

Silvery iron costs more than ordinary pig, so it is carefully measured into the cupola charge. Even so, it is consumed by foundries at a rate that devours 75% of Globe's 200 daily tons. The remaining 25% goes to steel mills, which use

it mainly as deoxidizer and as an alloy.

• **Process**—There are a lot of reasons Globe and its rivals have had the silvery iron field to themselves. The market for it is small, compared with that for ordinary pig. It requires special raw materials and special care. Large blast furnaces, integrated into steel making, have found that it is better business to buy silvery than to produce it themselves.

The smelting of silvery iron is a slow, soaking process. A low-ash, low-sulfur, noncoking coal is used along with coke. That's to obtain the necessary richer gases and high heat.

In normal pig iron, there's seldom more than 3% of silicon. The figure may run up to 17% in ferrosilicon iron. The silicon, by the way, gives the iron the silvery appearance from which its name comes.

• **History**—The story of how Globe Iron came into being, and how it got into its present specialty, covers a whole chapter in the history of iron and steel making.

In 1854 a group of Welshmen got possession of several thousand heavily wooded acres in southeastern Ohio. Besides trees (used for making charcoal), the area had deposits of almost self-fluxing carbonate iron ore. The ore was well-suited for charcoal furnace operation, and the Welshmen built a furnace.

Eighteen years later Thomas T. Jones, first of the dynasty, appeared on the scene. He bought two going furnaces and established the Globe Iron Co.

By the end of the century both the trees and the iron ore of southeastern Ohio were just about exhausted. The industry as a whole had felt the importance of the Lake Superior mines; it had begun to centralize in the Pittsburgh-Cleveland area.

• **"Rotten" Iron**—It was root hog or die for the fading furnaces like Globe and its score of rivals. John E. Jones, grandson of the founder, decided to seek salvation in the huge piles of "rotten" iron that lay around many an already abandoned furnace; the heaped-up iron was called rotten because its high silicon content tended to make it brittle.

Jones first persuaded a stove manufacturer to try the rotten iron. The stove man was delighted, for the iron's high fluidity enabled him to pour it easily into intricate molds. Soon other applications were discovered. Globe Iron was back in business, on a more solid basis than ever before.

By 1902 rotten iron was being dignified by the name of silvery. And Globe was selling so much of it that it rebuilt its plant, later adding other facilities in 1912. It is built around the blast furnace, with its production rate of 200



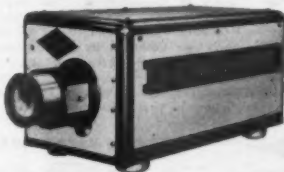
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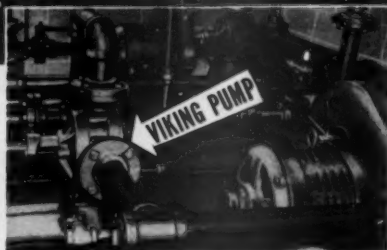
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tons of silvery a day. The furnace could turn out twice as much ordinary gray iron, since the latter allows lower temperatures, less reducing fuel, and less soaking time in the furnace.

• **Flexible**—The production rate goes down as the silicon content goes up. Before the defense emergency, Globe generally supplied each customer with a tailor-made silicon content. There were over 100 different mixes. This meant varying production rates and accounts for the fact that total production of the furnace was something like 80,000 tons a year, which actually works out to more than the official rate of 200 tons a day.

Under pressure of the emergency, Globe's management has averaged out its orders and standardized its product pretty much on an 8½ to 10% silicon content. The product is allocated, without too much huffing and straining, among the company's comparatively few regular customers. But it's sold faster than it's made; not a pound is in reserve.

Globe has its own ore reserves around Lake Superior now—ores too lean in iron for nonspecialized use.

Since its start, Globe has been owned and operated by the Jones family. That's not the only way that it has been a family-type affair. Labor turnover is virtually unheard of; the company doesn't even have an employment office.

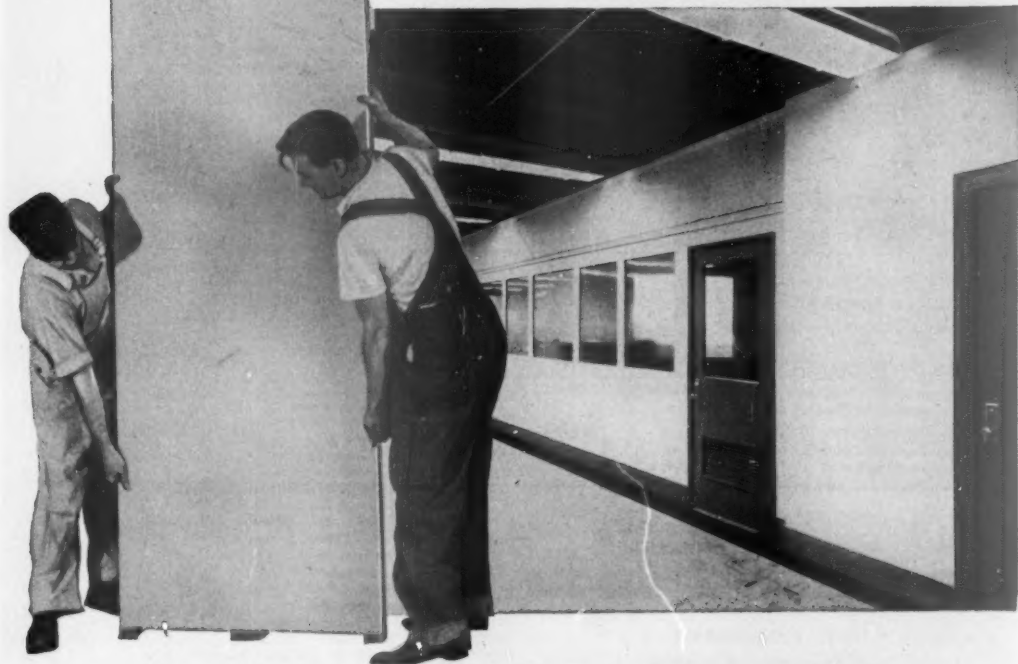
• **Getting a Job**—Jackson, a town of 6,000, handles the recruiting of workers. Its citizens don't have much choice of jobs, there are Globe and JISCO, or there are the coal mines. Generally, fathers start pointing their sons toward the plant when they're still children. The company is expected to find a place when the boy is old enough to work.

The results of this policy show in the payroll records; over 12% of Globe's workers have been with the company from 25 to 50 years. Laurence Will is a case in point. He joined Globe in 1898, worked on the furnace for 15 years, now keeps busy at odd jobs. Two of his kinfolk have Globe jobs that Will got for them.

The company looks after its people in various ways. In cooperation with JISCO, it operates a company store, with credit for employees. Ten years ago Globe set up a pension plan for employees aged 65. The company pays all pension costs, as well as group insurance.

Offices of the company are still housed in a small frame building, with one story. A new modern building is going up now. The workers, though, say that one thing will be the same in the new and grander building: All doors from the top down, will still be open to every employee.

# *Offices* where and when you want them with J-M Movable Walls



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● Reallocation of existing space and partitioning of new space can be done easily and quickly with Johns-Manville Universal Movable Walls. Made of asbestos, these walls are ideally designed to help business and industry meet the space problems involved in the defense effort.

The flush panels have a clean, smooth surface that's hard to mar, easy to maintain, and are extra strong to withstand shock and abuse. They're light in weight, easy to erect and relocate. The "dry wall" method of erection assures little or no interruption to regular routine.

Johns-Manville Walls may be used as ceiling-high or free-standing partitions. The complete wall, including doors, glazing and hardware, is installed by Johns-Manville's own construction men under the supervision of trained J-M engineers—responsibility is undivided.

An estimate will convince you that the cost of J-M Movable Walls compares favorably with other types of wall construction. For full details, write Johns-Manville, Dept. BW, Box 158, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario.

\*Reg. U. S. Pat. Off.



**Johns-Manville**

**ASBESTOS**

*Movable Walls*

**INSTALLED NATIONALLY BY JOHNS-MANVILLE**



# BANKING

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	Per cent ownership
Bank of America N.Y.&S.A. . . . .	5.6%
National City Bank of New York . . . . .	6.4%

### INSURANCE SUBSIDIARIES

Occidental Life Insurance Company of California	100.00
Pacific National Fire Insurance Company and Subsidiary . . . . .	100.00
Manufacturers Casualty Insurance Company and Subsidiary . . . . .	99.77
Paramount Fire Insurance Company . . . . .	92.41

### REAL ESTATE DEVELOPMENT AND PROPERTY FINANCING SUBSIDIARIES

Allied Building Credits, Inc. . . . .	100.00
Capital Company and Subsidiaries . . . . .	100.00

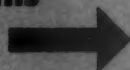
### MANUFACTURING SUBSIDIARIES

General Metals Corporation and Subsidiary . . . . .	93.72
Columbia River Packers Association, Inc. . . . .	61.05

### OTHER SUBSIDIARIES

American Brokerage, Inc. (inactive) . . . . .	100.00
Coast Service Company . . . . .	100.00
Corporation of America . . . . .	99.93
Intra-America Corporation (California) . . . . .	100.00
National Insurance Agency . . . . .	78.99
Occidental Corporation (inactive) . . . . .	100.00
Timaplan Incorporated (inactive) . . . . .	100.00

...but  
not  
this



## BANKING SUBSIDIARIES

### CALIFORNIA:

	Per cent ownership
American Commercial & Savings Bank, Menlo Park	90.00
Bank of Beaumont . . . . .	95.00
Bank of Newmont . . . . .	97.22
Bank of Pinedale . . . . .	94.81
Bank of Tehachapi . . . . .	92.50
Central Bank, Oakland . . . . .	92.15
Central Bank of California . . . . .	92.50
Farmers and Merchants Bank of Watts . . . . .	97.50
First National Bank in Carleton . . . . .	90.00
First National Bank in Delano . . . . .	95.33
First National Bank in Santa Ana . . . . .	98.50
First National Bank in Turlock . . . . .	89.67
First National Bank of Bellflower, The . . . . .	95.00
First National Bank of Crews Landing, The . . . . .	89.60
First National Bank of Fairfield, The . . . . .	90.00
First National Bank of Garden Grove, The . . . . .	97.33
First National Bank of Los Altos, The . . . . .	93.87
First National Bank of Mountain View, The . . . . .	88.05
First National Bank of Oakdale, The . . . . .	92.00
First National Bank of San Jacinto, The . . . . .	90.00
First National Bank of Wood, The . . . . .	90.00
First National Trust and Savings Bank of Santa Barbara . . . . .	95.85
First Savings Bank of San Jacinto . . . . .	90.00
First Trust and Savings Bank of Pasadena . . . . .	96.06
Stanislaus County Bank . . . . .	97.08
Temple City National Bank of Temple City, The . . . . .	95.00

### OREGON:

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Benton County State Bank . . . . .	97.33
Carlton State & Savings Bank . . . . .	90.00
Cleaton County Bank . . . . .	97.00
Coastside and McClellan . . . . .	98.13
First National Bank of Cottage Grove, The . . . . .	90.00
First National Bank of Eugene, The . . . . .	98.90
First National Bank of Forest Grove, The . . . . .	90.00
First National Bank of Lebanon, The . . . . .	96.67
*First National Bank of Portland, The and Subsidiary . . . . .	56.51
First National Bank of Prineville, The . . . . .	90.00
Monroe State Bank . . . . .	91.67
Marland-Silverwood Bank . . . . .	97.00
Scio State Bank . . . . .	95.00
State Bank of Multnomah County . . . . .	94.60
Yamhill State Bank . . . . .	90.00

### ARIZONA:

*First National Bank of Arizona . . . . .	64.90
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### NEVADA:

Bank of Nevada . . . . .	70.00
Farmers' Bank of Carson Valley, Inc. . . . .	88.00
*First National Bank of Nevada . . . . .	99.10

### WASHINGTON:

*National Bank of Washington . . . . .	82.28
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\*Chain bank

## The Giannini Empire Battens Down the

Three years ago, almost to the day, 75-year-old Amadeo Peter Giannini had his say. He stood before the stockholders of Transamerica Corp. and blasted the Federal Reserve Board. In progress at the time was the Fed's "tendency to monopoly" case against Transamerica. "What they're trying to

do," said A. P., "is force us to agree to a holding company bill that will freeze Transamerica and leave other concerns unaffected." Five weeks later Giannini died in his sleep, and direction of the fight passed into the hands of his younger associates.

Two weeks ago the Federal Reserve

Board had its say. It directed Transamerica Corp. to sell all its western banking interests, except the Bank of America National Trust & Savings Assn. in California (BW-Apr. 5 '52, p24).

The Fed's say, however, may not be the final word. Transamerica is mobi-





A. P., founder of the banking empire.



ELISHA WALKER, would-be saboteur.

## Hatches Again

lizing its forces to protect the far-flung empire that was built by A. P.

### I. Horatio Alger Hero

Amadeo Peter Giannini, the son of Italian immigrants, was born in 1870 in San Jose, Calif. His father, Luigi Gian-

nini, operated a small hotel there for a while. On the side he had a 40-acre fruit ranch. From the time he could toddle, Amadeo rode the wagon when his father delivered fruit to the ships at Alviso, at the southern tip of San Francisco Bay. When A. P. was seven, his father was shot and killed as he dove his horse down the long avenue of his fruit trees. He died in A. P.'s arms.

A few months later the widow married Lorenzo Scatena, an expressman who hauled other ranchers' produce to Alviso. The family moved to San Francisco, where Scatena got into the commission end of the business. There, A. P., against his mother's wishes, would sneak out with his stepfather at night and spend three or four hours helping on the docks. As he learned to write, he would transcribe the ship's manifest so his stepfather could gauge the supply as a guide to his buying. In desperation, his mother let A. P. quit school before he was 12 to make his career in the commission business. His only other formal education was five months in a business school.

• **Partnership**—A. P.'s gift for bargaining won him a partnership with "Pop" Scatena when he was 19. In 1901, at the age of 31, he retired—the first of many retirements. He invested his profits from the commission business in real estate. These investments were yielding him \$250 a month, and he decided to settle down with his growing family and enjoy life. His son-Lawrence Mario was then seven.

What A. P. hadn't figured on was that his real estate investments would take some managing. In the process, he found it wise to sell a parcel here, buy another there—and the first thing he knew he was up to his ears in the real estate business. His popularity with the Italian-American colony in San Francisco's North Beach made his success in real estate as dazzling as in fruit peddling.

### II. Banker Giannini

It was at this stage that A. P. got into banking—by the back door. His father-in-law died, and A. P. was executor of the estate. One of his duties involved the directorship in a savings and loan society. But the other directors weren't too happy about the new business he attracted.

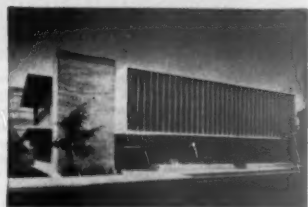
It was A. P.'s idea that small businessmen needed financial help quite as much as did big businessmen. At the showdown, the other directors refused to have any truck with small borrowers, so A. P. quit the board and announced



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1. Here is Fred Donovan, merchandise manager of a large city department store. With an annual income of \$15,000 and a bright future, he has nothing to worry about.



2. But one day in May, 1948, when his friend and golfing partner, Jim Tabor—agent for Union Mutual—explained the unique features of UM sickness and accident insurance, Donovan took out two policies "just in case."



3. Fortunate for him that he did, for on November 18, 1948, Fred became seriously ill. A subdural hematoma, or cranial hemorrhage, followed later by arthritis completely disabled him.



4. Today, although Fred will never be able to resume his former job, he is able to get by, thanks to regular monthly payments from his Union Mutual policies, plus some part-time business activity. And, more important, although Fred Donovan would now be considered *uninsurable* by any insurance company, he is sure of those regular monthly payments because his Union Mutual sickness and accident policies are *noncancellable* and *guaranteed renewable* for their full term.

**Moral:** The best time to insure against loss of income due to sickness or accident is *before* your earning power is curtailed or stopped. The best way to insure is with a Union Mutual Non-Can policy. It is the only type of insurance that cannot be cancelled by the insurance company and that guarantees you the privilege of renewal.

Your Union Mutual agent can explain these facts and can help you to select the policy best suited to your particular needs. You'll find his office listed in the yellow pages of your telephone book.

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that he would start a bank for the little fellow. A few of the directors quit with him.

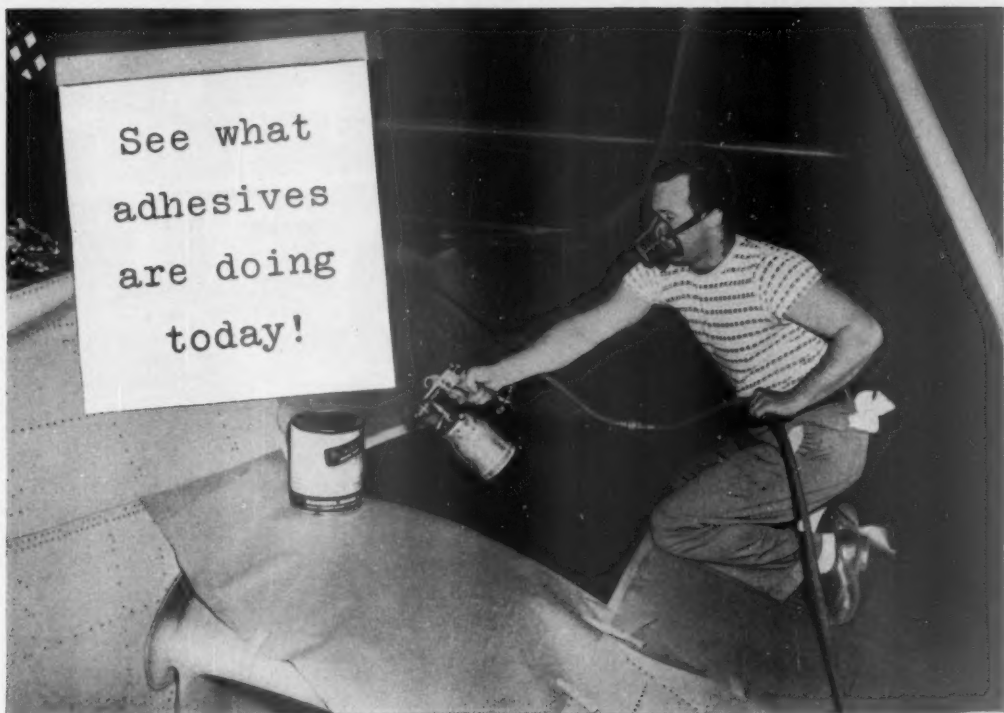
• **Flying Start**—On Oct. 17, 1904, Giannini turned the key in the lock of the Italian Bank of California—a one-room office that was to grow into the colossus that is now the Bank of America. He started with a capitalization of \$150,000—funds supplied by himself, by a few savings and loans of directors who followed him, and by a host of North Beach friends. Almost immediately, they changed the name to the Bank of Italy because of a prior claimant to the other name. A. P. pounded the sidewalks soliciting business. He even committed the heresy of buying space in local newspapers. But his "unethical" methods paid off: Within eight months he paid his first dividend—5%. In a year his resources were more than \$1-million. And Giannini was on his way.

While A.P.'s early venture into banking looked like an altruistic gesture toward the small business man, actually A. P. was consumed by a smoldering yen for power that the years never extinguished. If he used his power to help the small business man, the fact remains that his fierce drive mowed down the little fellow along with the big one who got in his way. And he rarely missed an opportunity to assert his leadership. When the San Francisco earthquake and fire of 1906 practically leveled the entire business district, and the big bankers feared they could not reopen for six or eight months, A. P. set up a desk on the Washington Street wharf, hung a Bank of Italy sign over it, and was back in business.

### III. Branching Out

A little more than a year later he opened his first branch on the outskirts of San Francisco's mission district. The idea of large-scale branch banking was taking root in his mind, and California seemed to be the ideal spot to try it. In 1909 he bought the Commercial & Savings Bank of San Jose and merged it into the Bank of Italy. He absorbed a couple more in San Francisco before he ran into governmental resistance. The state banking commissioner wasn't sure why branch banking looked evil to him, but he and many of his successors opposed it. They apparently sensed the surge of power in the hands of an individual who could bring many banks under one corporate roof—and a person cunning enough to find loopholes in the banking laws was a person to be feared. In any event, A. P.'s accumulation of banks behind the shingle of the Bank of Italy was fought every step of the way.

• **More Worlds to Conquer**—With the establishment of the Federal Reserve



## Making walkways for Banshees

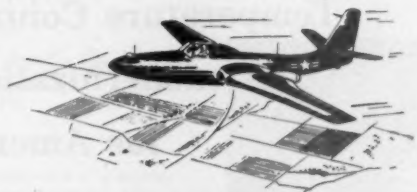
Making non-skid walkways for airplane wings might not seem like a difficult problem. But keeping any kind of coating on jet-powered wings is next to impossible . . . the windstream tends to peel it off.

The McDonnell Aircraft Company, makers of the Navy Banshee jet fighter, asked 3M for a product that would stay on, yet be flat enough not to set up wind resistance and affect the plane's flight characteristics. 3M engineers suggested this: a primer coat of adhesive and a final coat of Corogard #22, a non-skid coating. The new walkway passed all flight tests, and is now part of the airplane.

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The thermostat you see on the pillar in the photograph of Gordon's purse and glove section, right, is one of seven on the ground floor. Located near the main entrance, it gives area control and aids the entrance thermostat in compensating for cold winter drafts and hot summer blasts.



## Why Honeywell Customized Temperature Control is a sound modernization investment for American Business



*Specially designed system provides year-round comfort that pleases customers and employees—while saving 25% on fuel*

You'd have to look a long time to discover a more "typical" American department store than Gordon's in Gary, Indiana. And you'd have to look a long time, too, to discover one that was more genuinely comfortable—all year 'round.

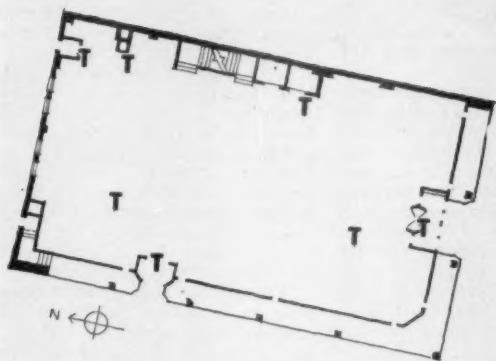
For providing customers and employees of Gordon's Department Store with a near-ideal "climate"—no matter

what the weather—is a Honeywell Customized Temperature Control System.

And what's more, since this customized control system was installed, the management has experienced a 25% annual reduction in fuel bills.

The intangible good will and efficiency benefits derived from customer and employee comfort, plus the very tangible benefits derived from fuel saving make Honeywell Customized Temperature Control a mighty sound investment.





**The right number of thermostats for perfect comfort**

As shown by the large T's above, one of the keys to comfort in the Honeywell Customized Temperature Control System is thermostat location. Notice how this works on the plan—compensating for exposure, use and occupancy differences. Notice how special thermostats guard entranceways, make up for elevator shaft heat loss and give general area control.

Instrumental in planning the installation of Honeywell Customized Temperature Control in Gordon's Department store were Gary architect I. M. Cohen; William Goodman, consulting engineer, Chicago; William H. Stern, Gary, general contractor; Klingaman & Sons, Gary, air conditioning and heating contractor.



**A special thermostat in the women's coat and suit department on the third floor helps make sure customers don't become uncomfortably warm when trying on heavy garments. Other Honeywell thermostats located in other third floor areas helps meet particular comfort demands of a variety of departments.**



**Office workers, too, are pleased with the year-round comfort Honeywell Customized Temperature Control provides. Before the system was installed, office sections—especially when they had no outside windows, as in the case of the one above—often became uncomfortably warm. Now they almost never do.**

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Whether it's a store, factory, office, or any size public building—new or existing—there's a Honeywell Customized Temperature Control System to meet your heating and ventilating problems.

Once equipped with a Honeywell Customized Temperature Control System, you'll have the right kind of controls to keep your employees, customers and tenants comfortable—and you'll save fuel besides.

For facts on Honeywell Customized Temperature Control, call your local Honeywell Office. There are 91 across the nation. Or mail coupon today.



**"Customers and employees certainly enjoy our new 'climate,'" says Benjamin H. Gordon, president, Gordon's Department Store.**

**"That's one way Honeywell Customized Temperature Control has helped our business. And you can bet we like the 25% cut in our fuel bill, too!"**

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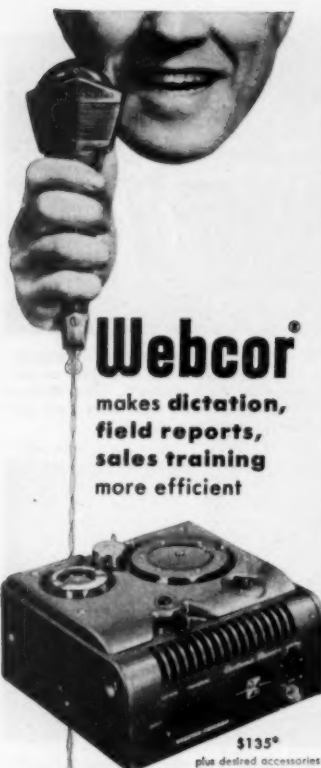
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**"... the explosion shook the foundations, but it didn't weaken them ..."**

GIANNINI starts on p. 110

System, A. P. began to cast eyes across state lines. On the Fed's pledge that it would not stand in the way of branch banking, A. P. took the Bank of Italy in the Federal Reserve. At the same time he incorporated the Bancitaly Corp. as a bank holding company. This was the forerunner of Transamerica Corp. Bancitaly owned 99% of the stock in the Bank of Italy. It soon bought the East River National Bank in New York and the Banca Dell, Italia Meridionale, a branch banking system in Italy.

Bancitaly Corp. became a convenient repository for the stocks of unit banks in California that A. P. wanted to weld into his Bank of Italy. The holding company, however, was intended primarily as the owner of an interstate system of banks that could not cross state lines.

As early as 1927 the Giannini system was attracting national attention. It was then that the Bank of Italy acquired the Liberty Bank of America—a San Francisco institution of 174 branches—and the Italian American Bank of San Francisco. That made it the biggest banking institution outside New York.

• **Hidden Shoals**—In 1928 Bancitaly bought the Bank of America of New York and merged its other New York banks into it. Then came the first rumblings of Federal Reserve dissatisfaction with the burgeoning empire. The Fed suggested that Bancitaly ought to divest itself of its Bank of America holdings.

Giannini, who had a low boiling point, was furious. It's clear enough, in retrospect, why the Fed was growing uneasy. In that slap-happy day of buying on margin, people were pyramiding their profits by borrowing from loan sharks against their Giannini stocks and reinvesting the proceeds for more of the same on a 20% margin.

June 11, 1928—"Blue Monday" in the Giannini lexicon—was the day of reckoning. The deep slide in Giannini stocks shook out the amateur speculators and blew the paper profits right up the flue.

But if the explosion shook the foundations of A. P.'s empire, it didn't weaken it. A. P. went right ahead with his plans. In October, 1928, he dissolved Bancitaly Corp. and incorporated Transamerica Corp. to take over its assets.

• **Top Dog**—At this point, Transamerica Corp. was at the top of the Giannini

pyramid. TA's holdings included the Bank of Italy in California, with hundreds of branches; the Bank of America in New York; and the Bancamerica Corp., which had been formed to handle the investments of the New York bank.

A. P. saw big things ahead for the New York bank, and he shopped around for a shrewd manager. He found him in Elisha Walker, partner of the investment banking firm of Blair & Co. In 1929 A. P. merged Blair & Co. with Bancamerica Corp. to form Bancamerica-Blair Corp. It seemed clear that Walker was crown prince of the empire, at least as far as the eastern end was concerned.

With Walker, A. P. signed an agreement on the policies that the holding company would follow, and A. P. himself retreated to the chairmanship of a nominal advisory committee.

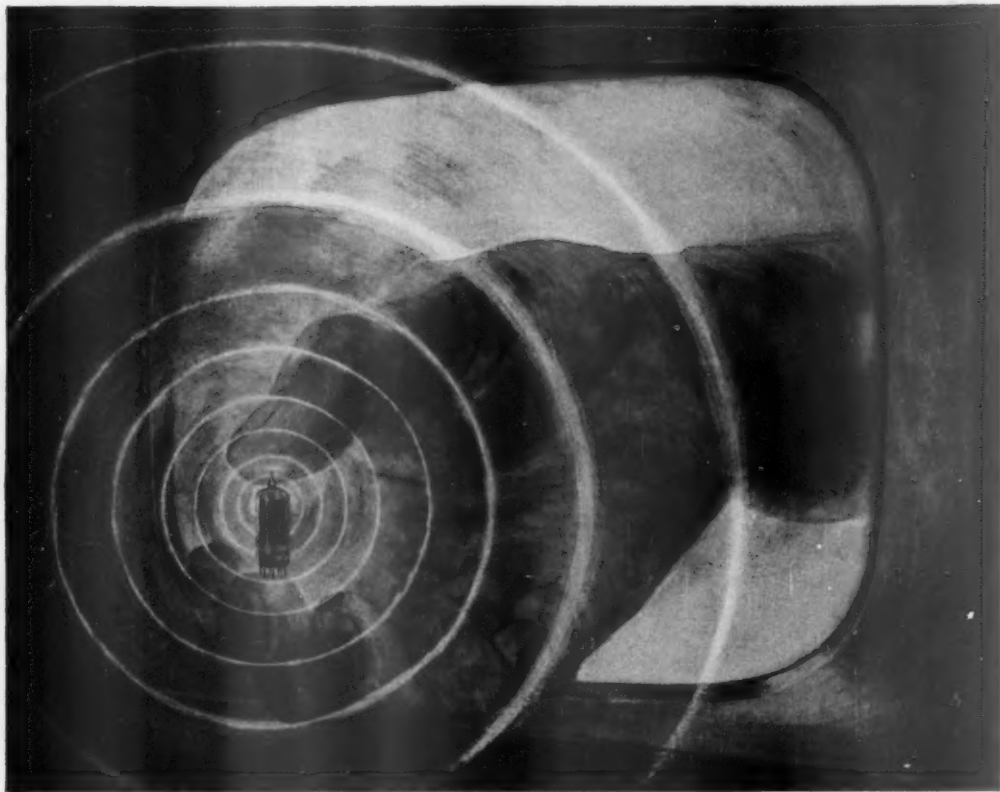
In September, 1930, the Bank of Italy and Giannini's other California banks were merged into the Bank of America National Trust & Savings Assn. (That's the present Bank of America, in California.) That gave Walker two robust banks at opposite ends of the axis on which to hang a vast transcontinental branch-banking system. Transamerica never came close to that goal. It was hampered almost from the start by bear raids on the stock. But Walker and A. P. proved themselves capable of handling the bears.

#### IV. Fifth Column Activity

Once more retired, Giannini left early in 1931 for a trip abroad. While there, he heard the first rumblings of a crack in his empire. Walker had sold Transamerica's 63% interest in the Bank of America in New York to National City Bank for about one-third its value. Other properties were disposed of, too. And Walker reorganized the TA board of directors in a way that shifted control from the West to the East. A. P. came roaring back from Europe.

A. P. made it clear that Walker was an asp at his bosom, wilfully busting up the Giannini empire for his masters in Wall Street. To make matters worse, Walker had frozen a fund that was held in Giannini's name in the California bank—and the freeze cut A. P. off at the pockets. He wasn't broke, but he was close to it—and ahead lay a long and expensive battle to recover control of Transamerica. To finance it, A. P. borrowed \$50,000 on his life insurance policies.

• **A. P. Climbs Back**—The battle for proxies to be exercised at the next annual meeting of Transamerica on Feb. 15, 1932, was a fierce one. But at the showdown, A. P. was able to vote



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**HOW TO PRODUCE "NOTHING"**—When the tube is being made, all possible air is pumped out and the tube is sealed. Then a tiny "getter"—built into the tube—is set off

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**T**HE dimensions of a cash register's parts have to be exact to keep it working accurately. And the precision of these parts depends upon the accuracy of steel gages like the one below.

The National Cash Register Company was not satisfied with the steel from which it made its gages. The steel wore too quickly. And it tended to seize and gall.

Searching for a better steel, the manufacturer turned to metallurgists of The Timken Roller Bearing Company. After studying the problem, they recommended Graph-Mo—one of four graphitic tool

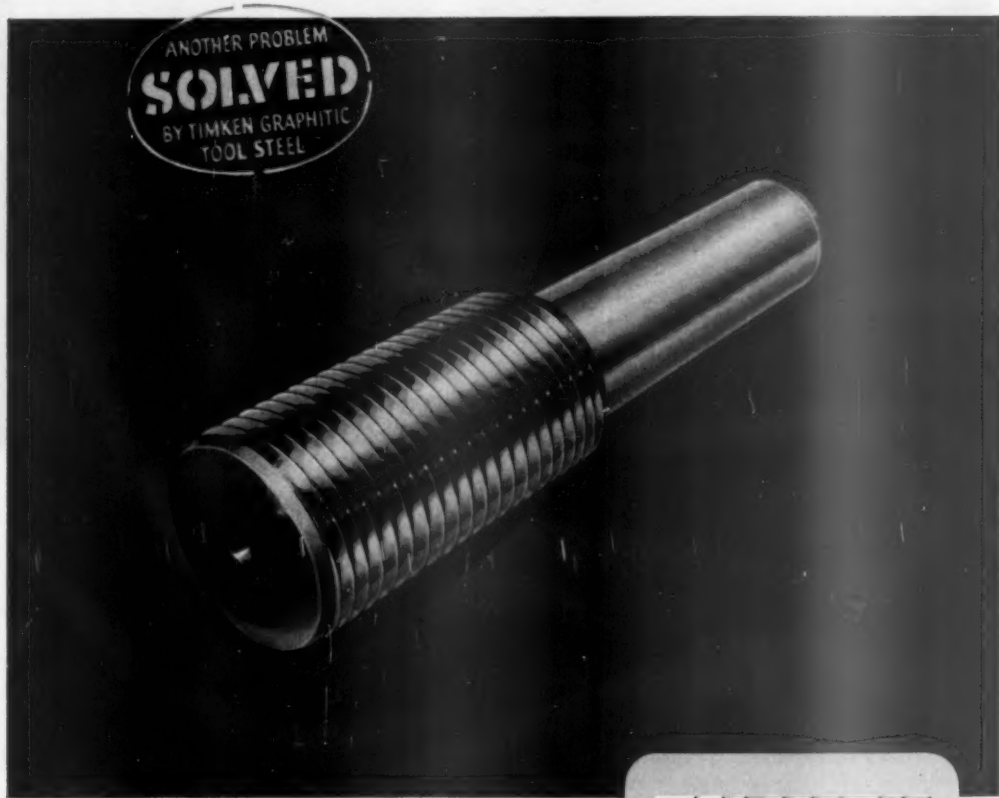
steels developed by the Timken Company.

Because Graph-Mo contains diamond-hard carbides, it has unusual resistance to wear. Free graphite in its structure keeps it from sticking to other metals. And because of its extreme stability, Graph-Mo has no tendency to grow or shrink.

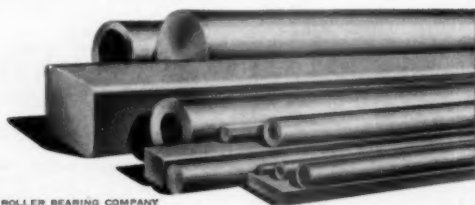
The National Cash Register Company decided to give Graph-Mo a try on a few of their tough gage problems. And it proved to be the answer. It outwore the tool steel previously used by such a remarkable margin that the company decided to standardize on Graph-Mo for *all* of its gages. In addition,

they found that gages were easier to make out of Graph-Mo, because it machined 25 to 30% faster and gave a uniform response to heat treatment.

This is one more problem that can be stamped "Solved—by Timken Graphitic Tool Steel". It's a record unmatched by any other steel producer. Why not let us help with *your* steel problem? Write The Timken Roller Bearing Company, Steel and Tube Division, Canton 6, Ohio. Cable address: "TIMROSCO". Tapered Roller Bearings, Alloy Steels and Seamless Tubing, Removable Rock Bits.



YEARS AHEAD—THROUGH EXPERIENCE AND RESEARCH



COPY, 1952 THE TIMKEN ROLLER BEARING COMPANY

# TIMKEN

*Fine Alloy*

# STEEL

*and Seamless Tubes*

15.3-million of the 23.6-million shares outstanding.

Badly burned, but back in control, A.P. yanked Transamerica's headquarters out of Wall St. and returned it to California. He remained in effective control until his death in June, 1949.

Like all other banks, Giannini's closed during the bank holiday in 1933, but the Bank of America was among the few that didn't need a cash infusion from RFC. In spite of that, Giannini found himself increasingly in hot water with the federal government, and always over branch banking.

## V. The Charge

The Securities & Exchange Commission teed off on him in 1938 in an historic case that was to stretch out for seven years before it petered out. And when SEC gave up, Federal Reserve took up the cudgel.

The FRB case began in 1948. TA was accused of violating the Clayton antitrust law by its tendency to monopolize the banking business in California, Oregon, Washington, Nevada, and Arizona. Hearings were held in San Francisco and in Washington by Rudolph M. Evans—one of the FRB governors—with J. Leonard Townsend as prosecutor.

Sam H. Husbands, formerly of the Reconstruction Finance Corp., is president of Transamerica and has been the sole spokesman during the FRB storm. (Mario Giannini is a director of TA, but no other member of the Giannini family is an officer or director.) But Husbands isn't saying what TA will do if the courts sustain FRB's bust-up order.

In 1950, while the FRB case was going on, TA tried to carry out a long-range plan to sell its 22 California banks to the Bank of America (BW—Jul.15'50,p20). Townsend blew a fuse. He got a contempt citation against Giannini and Husbands, threatened to throw them in jail if they didn't purge themselves immediately. Townsend squawked that the sale, even though it had been in the works for five years, would "frustrate" his pending case. He wanted TA to divest itself of 47 banks in the five states—including the 22 in California—but paradoxically, when TA tried to shuck off the 22 banks, he blew the whistle.

• **Still Pitching**—What will be the outcome of the battle is anybody's guess. The Bank of America alone, with its 528 California and eight foreign branches, plus an uncounted number of U.S. Army "facilities," is the biggest nongovernmental banking institution in the world. There isn't an industry in California that hasn't been influenced in some degree by financial relations with the Bank of America.



St. Regis Paper Co. put in an Alameda County branch plant in 1930, built plant pictured here in 1947.

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Skilled Labor are  
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# TRANSPORTATION



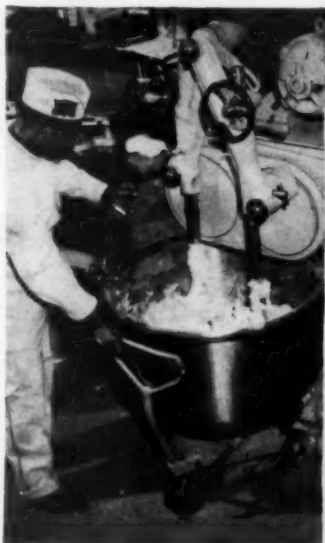
## FACTORY

Pies are mass-produced by assembly-line methods. Man in background cranks rolled dough out of a machine; bakers fill and assemble the pie.



## MIDDLEMAN

On the train, the chef draws on his pie



**MACHINES** are used in the Rock Island's Chicago kitchen to whip potatoes.



**GREAT TRICK** in the frozen-food service is the ease of preparing meals in the dining car kitchen. Here the chef is putting foil-packaged food in the warming oven.





supply as it's needed. Pies stay in food chest until waiters bring in orders from patrons.

**CONSUMER** The regular waiters, supervised by a steward (background), serve the frozen foods faster than they could a conventional meal.

## Quick-Frozen Meals Speed Diner Service

Railroad riders aren't alone in getting dyspeptic over dining car service—railroad presidents suffer, too, every time they look at their cost sheets. Customers complain the meals cost too much; railroads complain they lose money on every meal they serve. One cure for fiscal indigestion that's gaining ground among the roads: precooked, quick-frozen meals.

For the clients, these meals have two advantages:

- It takes less time to prepare and serve precooked, quick-frozen foods.
- Prices generally run from 15% to 20% less than prices of conventional diner fare.

For the railroads, there are three big advantages:

- Food can be mass-purchased and mass-produced at a central commissary. Seasonal fruits and vegetables can be bought for months ahead at the time it's cheapest.

- Preparation of meals requires less manpower in the dining car.

- There's less waste of food put

aboard the diner but not ordered. What's left over at the end of a run can be preserved for later use, just like any other quick-frozen food.

• **Two Approaches**—Railroads headquartered in the Midwest are already using two slightly different applications of the frozen meal. The Chesapeake & Ohio orders complete dinners from Frigidinner, Inc. (BW-Dec.15'51, p 110). The Rock Island precooks and freezes its food items at its Chicago commissary and assembles the meals on the train as usual.

Although C&O's "Chessie-Tray" meals are low-priced, 95¢ to \$2.20 from soup to coffee, the road expects to save \$750,000 a year in dining car losses (BW-Feb.23'52, p128).

Rock Island started its new service only a couple of weeks ago, on one round-trip train, but the economy of the system has already been proved. Rock Island lost \$1½-million on its diners in 1951. Every \$1.50 meal paid for by a passenger cost the road about \$2.70.

Of this, approximately \$1.50 was for labor, 95¢ was for food, 10¢ was for laundry, and the rest was for miscellaneous expenses.

• **Rocket-Type Meals**—The first Rock Island train to use the new meals is the Des Moines Rocket, which makes a 720-mi. round trip between Chicago and Des Moines. The system will be gradually extended to other trains. Patrons didn't know they were eating frozen foods reheated in the diner kitchen. Their only comment was approval of the lower prices: chicken pot pie down from \$1.90 to \$1.50, swordfish down from \$2.10 to \$1.75, Swiss steak down from \$2.50 to \$2.

The Chicago commissary mass-produces a few items at a time, maybe enough rolls, or pies, or Swiss steak to last for several months. After being packaged, usually in aluminum foil, the food is quick-frozen in a walk-in freezer where the temperature hovers around -50F. Then it is held in a storage freezer until it's needed.

For each run, the dining car's freezer

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COOKED PEAS are weighed into aluminum foil containers in preparation for quick-freezing. Each pack contains six servings.

chest is restocked. As orders come in from the waiters, the chef pops the needed items in a warming oven to bring them up to proper temperature for serving.

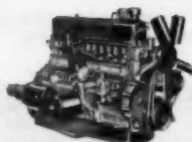
• **Savings All Around**—This type of preparation takes much less time than the conventional method. The railroad thinks it can cut one-third from the time a passenger has to spend in the dining car; that gives faster turnover, reduces travelers' complaints about having to stand in line too long for a meal.

The typical dining car has four men in the kitchen, four waiters, and a steward. The Rock Island thinks it can cut the kitchen staff by two men, maybe three.

Under the usual methods of preparing food on order, as much as 60% of the food put aboard a diner has to be thrown away at the end of a run. There's no such waste with frozen food. Rock Island is also trying to save on its laundry bill: At the outset of the frozen-meal service, the road is using paper placemats and napkins instead of linen. If there are too many complaints, though, the road is ready to restore cloth napery.

The Rock Island is also continuing to serve fresh the few vegetables and fruits that can't be quick-frozen successfully. But most meats, vegetables, pastries, fruits, and desserts can be quick-frozen without any loss of quality.

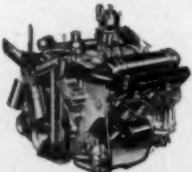
• **Further Plans**—If the frozen-food system is extended throughout the Rock Island system for all through trains, the road will probably set up food depots here and there to service the diners. Foods prepared and frozen at the Chicago commissary will then be shipped to the depots in special freezer cars.



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All but **one** of the objects in this picture have something in common — Norton or Behr-Manning abrasive products are vital factors in their manufacture and in their quality. *Can you find the stranger?*

## ***What doesn't belong in this picture?***

**The electric mine car?** No! In this new device, for hauling loads through narrow pits, Norton abrasives are essential to the manufacture of almost every part.

**The harrow?** No! Its concave discs are "roughed and polished" with Behr-Manning RESINALL METALITE belts.

**The binoculars?** No! Their lenses were shaped by Norton diamond wheels on automatic lens generating machines. Other parts were also precision ground by Norton abrasive products.

**The hamburgers?** No! The machines that grind them are deburred, in casting form, with Behr-Manning coated abrasives. Even the surface on which they are

frying is cleaned with a Norton ALUNDUM griddle brick.

**The stranger in the picture** is the bird's nest. Any man-made product — whether of metal, wood, paper, cloth, leather, ceramics, plastics — depends in some important way on products that bear such well-known trade-marks as Norton and Behr-Manning.

*Norton Company makes abrasives, grinding wheels, refractories, Norbide grain and molded products, grinding and lapping machines, non-slip floors. Norton Company, Main Office and Works, Worcester 6, Massachusetts.*

*Behr-Manning makes abrasive paper and cloth, oilstones, abrasive specialties, Behr-Cat brand pressure-sensitive tapes. Behr-Manning Corporation, Division of Norton Company, Troy, New York.*

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MOVERS pulled props from under the press, one layer at a time, then . . .

## On the Road: 500-Ton Load



TWO-HEADED TRUCK crawled along 48-mi. route to new site. Tractor unit at left





... rolled it to the truck loading platform.

(Story on page 126)



pushed on upgrades, held back on downgrades.



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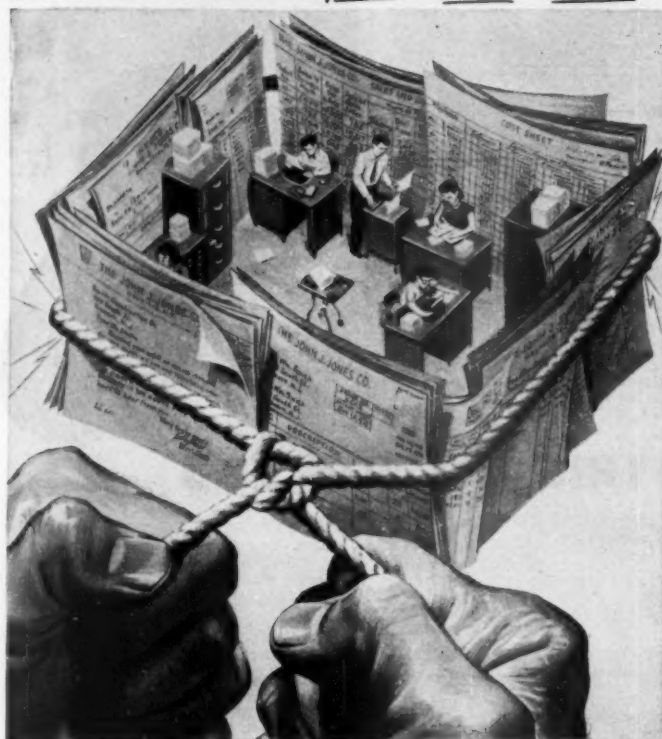
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*"... Half the moving time was used up in inching the press... down to ground level..."*

MOVING starts on p. 124

They say all you need to be a piano mover is a strong back and a weak mind—though it helps if you also have block and tackle and a dolly. When you're faced with moving a 500-ton machine from one factory to another, you have to multiply the brawn, brains, and paraphernalia.

Hamilton Standard Division of United Aircraft Corp. spent 10 days moving a 500-ton furnace press from its East Hartford (Conn.) plant to its new Windsor Locks location, 20 crow-flight miles away. Half the moving time was used up in inching the press from the second floor down to ground level. But probably the most ticklish job was trucking the great load over a circuitous 48-mi. highway route (pictures, pages 124, 125).

• **Out by the Roots**—Riggers first dismantled the furnace unit, which was on the ground floor. They shoved the sections out through the side of the plant and hoisted them onto a truck. It was harder to pull the press out by the roots.

The second-floor press, which was built above the furnace, is 15 ft. high, 14 ft. long, and 8½ ft. wide. It had to be lifted from its heavy concrete bed, jacked onto greased steel sheets, then slid sideways to a crib of timbers built up from the main floor. This part of the job took eight hours.

Next, the machine had to be jacked up while a layer of timbers was removed, then lowered softly to the next level of timbers. Over and over, this process was repeated, with care not to tilt the press—there were only three inches of clearance on each side.

• **Slow Travel**—When the press reached ground level, it was swung at right angles and pulled through a hole in the wall. At last it rolled aboard a low-bed truck. By then, a weekend had arrived, and the truck was jacked up to relieve the weight on the tires until the following Monday.

Meanwhile, Hamilton and the riggers checked with highway officials about the route. They laid out a 48-mi. route that avoided low underpasses and bridges not stressed for heavy loads.

The truck made its trip at 6 mph. under police escort. It used the push-pull method, with a second tractor unit attached by cables to the rear to push up hills and help with the braking on downgrades. The press wound up safely on its new bed—and Hamilton had only two sister machines to move.



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## LUXURIES



LUXURY ITEMS that Sam Bordelon shows in his modern-design shop, have moved out of class market. Now merchants are . . .

## Beating Paths to New Luxury Market

Not very long ago the market for luxury items was a fairly stable class market involving pretty well defined selling methods. The deep pile rug, the ingratiating sales person figured as much in the sale as the product itself.

Today if you want to sell luxury—whether it be original art, rare books, or 50¢ coffee—it sometimes seems that the more unorthodox your selling methods the more likely you are to make a go of it.

### I. Ride on the Wave

In a smothering Chicago snowstorm a few weeks ago, more than 50 people queued up early for a sale at a shop on rundown 55th Street in the University neighborhood of South Chicago. The crowd would have done credit to an opening-day sale in a new chain drug unit. But the shop was not a drug store; it specialized in furniture and wares of modern design.

Through Sam and Myrna Bordelon's place, during the first day of the sale, passed 2,000 customers eager to own a marked-down piece of Swedish glassware, California handmade pottery, or

a piece of furniture designed by George Nelson. One customer said: "We heard you might go out of business. You can't do that. We empty our piggy-bank to come here." The shop was not going out of business by any means; it was going the opposite way. At the end of that sale, so busy that customers were routed in one-way traffic through the front door and out the back, the Bordelons' four-year-old business rang up a \$120,000 year.

• **New Horizons**—Bordelon, a big, rangy man from Bordelonville, La. (named after his family), knows that his success so far is the product of a new age when class-market, luxury goods are being widely accepted by the mass market,

What has made the big difference is the general leveling of income, which has pushed out the frontiers of the luxury market. The shift has taken place so fast that there aren't any merchandising rules to follow.

To get an idea of the kinds of things that are being tried, listen to the stories of three successful ventures which in their own ways are offering the small-bill customer a chance at luxury.

that he is working on a constantly expanding frontier of taste. But the size of the frontier surprised even Bordelon, who turned from labor organizing to design in his mid-thirties, as a G.I. student at the Institute of Design in Chicago.

When he got out of the institute five years ago he wanted to be a cabinet-maker, a builder of custom furniture. He started out with a shop back of a small display room at the frayed-out end of 55th Street near multi-racial Cottage Grove Avenue.

He made no blueprint for expansion; it just took care of itself. First, in order to save some of his time for material-purchasing, sales, and financial manage-



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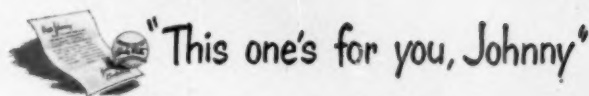
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COURTESY OF THE BABE RUTH FOUNDATION, INC.

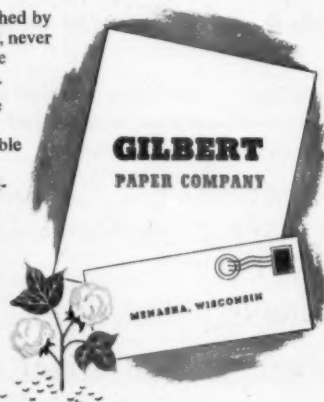


The specter of death had been in 11-year-old Johnny Sylvester's eyes that morning when, in answer to an urgent message, "The Babe" visited him in the hospital. Ruth had given Johnny an autographed baseball, and asked, "Will you get well if I hit a homer, just for you, in the World Series?" The stricken boy nodded a hopeful promise.

This is the dramatic background for that now famous episode—Babe Ruth confidently standing at the plate, and smashing a home run—just for young Johnny Sylvester.

Johnny had his ball, autographed by "The Babe" personally, and lived, never to forget that the mighty Yankee had hit a home run, just for him.

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ment he had to hire a cabinetmaker to help him. To be able to pay the cabinetmaker, he had to expand his line to include manufactured lines, ceramics, textiles, jewelry.

• **Spoon-Fed**—During that first year, it looked as if Bordelon needed a constant bank account of at least \$200 or \$300, yet it often dropped as low as \$25. With a 10-to-1 turnover of inventory to sales, he was able to spoon-feed the financial needs of the business without resorting to any capital aid except a small advance in the very first year. He is winding up two years in his second location on 55th Street and is getting ready to move to a third, bigger location on the same street.

The shop's growing pains were more than a little eased by the business-like presence of Bordelon's wife Myrna. Looking back over the first three years, she figures that she was part of the working capital herself—especially when she was changing diapers with one hand and filing social security records with the other.

• **Fast Growth**—Myrna and her husband have watched their business grow from a bouncing baby to pretty solid maturity in three short years. Bordelon's annual sales went from about \$10,000 to more than \$114,000. His sales space stretched from 400 sq. ft. to 26,000 sq. ft.

A basic factor in the Bordelons' growth has been the interest of the well-off apartment dwellers on the lake shore just a few blocks from the shop. But more and more customers are recent graduates from mail-order and instalment-house taste in design. As a result, the average price tag in Bordelon's shop has dropped from \$50 to about \$10.

• **A Trend**—The wave the Bordelons have ridden so far is a widespread movement toward small-store retailing of modern design. In 1945 there were about five such stores in the whole country; today there are probably over 100. Some observers wonder if the movement will grow so big that it will be taken over entirely by the department stores, squeezing out units like the Bordelons'. To the Bordelons the answer is "No." They figure on keeping ahead of the best department store buyers in their daring to try new things when they are new.

• **Toned Down**—Besides the general trend, there are two other more controllable factors in the Bordelons' success. One is their careful avoidance of a carriage-trade tone. This isn't hard to do in a store situated under a cheap, walk-up hotel, on a street more famous for its taverns than for quality merchandising. More important, though, the store makes it easy for the shopper by putting a great big, easily read price tag on everything. This makes a lot of dif-



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Factories in the *Land of Plenty*\* are close-by  
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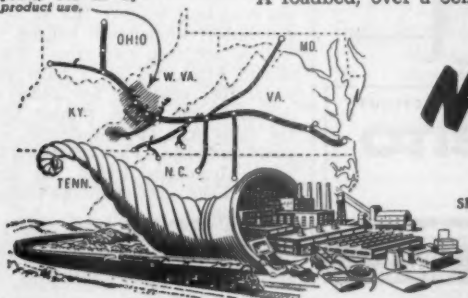
If you want your factory close by an abundant supply of the finest all-purpose Bituminous coal available, mined in the center of Norfolk and Western territory, and still within a 500-mile radius of major national markets . . . locate it in *The Land of Plenty*.\* GOOD plant sites are available here, offering you the man-made and natural industrial advantages essential to efficient production and distribution.

One of the nation's leading coal-carriers, the Norfolk and Western has spent and is spending millions of dollars to provide the finest coal-handling facilities that money can buy. Modern, powerful steam locomotives, thousands of sturdy steel cars, grade A roadbed, over a century of exper-

ience, efficient and strategically located yards, great piers at the Port of Norfolk, capable of handling over 1½ million tons per month . . . plus trained specialists, including combustion engineers who always are at your service . . . are distinct advantages for coal using industries in *The Land of Plenty*.

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world's finest all-pur-  
pose bituminous coal  
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L C SMITH & CORONA TYPEWRITERS INC SYRACUSE 1 N Y Canadian factory and offices, Toronto, Ontario. Makers also of famous Smith-Corona Portable Typewriters, Adding Machines, Vivid Duplicators, Ribbons and Carbons.

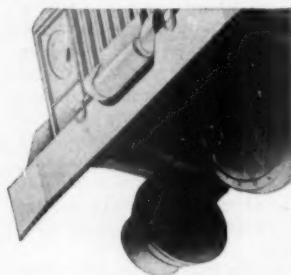
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Write today for the eight-page brochure — "How to Improve Your Order Control." We want you to have it with our compliments.



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(Please attach to, or write on, your business letterhead)

4 WASSELL EXCLUSIVES

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ference in selling a line to people who are sure that it is all expensive.

The other factor that makes the big difference, says Myrna Bordelon, is the buying function of the shop. It deals with more suppliers, in a greater variety of small transactions, than many a department store section with four times its space. Dealing with a jewelry supplier in Bordelon terms means nursing along the productivity of a hand craftsman.

• **Take It Away**—The personal touch in Bordelon's business is arrived at by the neatest formula of them all: customer participation in the delivery side of the business. The Bordelons permit their customers to carry their purchases away with them. Bordelon says: "If they can't lift it, we deliver it."

Bordelon has no quarrel with the success that literally took him by surprise. But now that he has to subcontract the shop-work on his custom furniture orders, he feels that he doesn't get to his drawing board and T-square as often as he would like to. He has also had to get over a feeling of guilt about the mark-up that he has to use. Rationally he understands the mark-up; emotionally, he feels that the manufacture and distribution of modern design is not yet delivering the price lines it owes its following. Meanwhile, a day at the shop gives its measure of the tensions that go hand-in-hand with taste-leadership. One of Sam's best customers, he says without irony, "is a fellow who never buys anything but always gives the stock a careful criticism."

## II. Have Fun With It

In the heart of midtown Manhattan is one of the more intriguing business ventures aimed at the small-check customer with a taste for luxury. Launched in New York this winter, it's called The Coffee Mill.

Specializing in coffees and pastries fit for a gourmet, this European-styled coffee-house is bringing blue-ribbon quality—at blue-ribbon prices—to a middle-class market. After-theater crowds, shoppers, and passers-by stream in to order capucino (Italian coffee) at 50¢ a cup or a malakoff torte at 65¢.

• **Self-Styled**—The young owners of the flourishing business, Hal M. Wells and Robert Kronmeyer, tailored The Mill to suit their own tastes. Poking around Manhattan for a quiet place where they could sip fine coffee and discuss life at leisure, without facing the stony stare of a headwaiter, they could find none. They concluded that what Manhattan needed was something on the order of Europe's famous coffee-houses.

Wells and Kronmeyer were convinced that other sensitive, intellectual people would like their place. But

they are frankly astounded at the way their restaurant venture has caught on. Much to their surprise, they find that, by selling delicacies in small doses, they are tapping a far broader market than the select group they had in mind.

• **Outdid Themselves**—Since opening in January, the Mill's owners have watched volume climb 713%. Turnover has picked up from about 40 persons a day the first week to over 300, and it's still growing. In its third week, the restaurant broke even.

To handle the trade, the pair have multiplied their employees from three to 25. Cash receipts already total several hundred dollars a day. Of that, the young partners are netting a fat margin. They explain their surprisingly low operating costs on the basis of good purchasing, a specialized menu, and minimum waste in the kitchen. At the rate things are going, Wells and Kronmeyer figure they won't have to wait very long to get back their original output (roughly \$15,000).

• **Same but Different**—The growing circle of customers are sampling The Mills' assortment of coffee—American, European, and Turkish. With it, they have their pick of an array of international pastry delicacies. The coffee and pastry menu vies with that of Manhattan's most posh restaurants.

The Mill's similarity to the elegant spots that cater to the carriage trade ends right there. Low on frills, its decor is far from pretentious. If anything, the atmosphere is faintly Bohemian, with student art work on the walls, canned symphonic music, and candles.

• **Good Spot**—One thing that got the coffee-house off to a fast start is its strategic location on 56th Street, west of Fifth Avenue. That's an ideal spot to catch the crowds as they pour out of performances at nearby concert halls and theaters. It's also within easy reach of shoppers, who keep the place busy from noon on through the afternoon. Between 8 and 11 in the evening, people drift in from numerous restaurants in the area for after-dinner coffee and dessert. Besides, the area is a center for European art dealers, musicians, and fashion experts with a yen for continental delicacies.

• **All in Fun**—Such a business plum is enough to make the average restaurateur's mouth water. But Kronmeyer and Wells consider it something of a lark. Their whole approach to the restaurant business is something less than orthodox. The Coffee Mill, they'll tell you, is just a hobby: "We don't take it seriously; we're just having some fun."

They spend most of their time pursuing a far more compelling interest of theirs, psychology and psychoanalysis. The partners, now in their thirties, studied psychology in their

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Coffee is the economic life blood of many Latin American Republics. Coffee means dollars to these countries—enables them to buy—and Otis to assist in selling many famous American products, such as: *Union Die Casting Plumbing Specialties, Trinity Portland Cements, Schlueter Household Metalware, Smoot-Holman Plumbing Ware, Crosby Chemicals, Clow-National Pressure Pipe and Fittings*, to mention a few.

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college days. Neither has a medical degree, though, and they are among the relatively few psychologists who have attempted to build up a private practice rather than associate themselves with a university or other institution, where psychotherapy is practised mainly on animals. Wells also owns a psychoanalytical magazine called *Complex*.

• **Go All the Way**—Their Coffee Mill took shape when the two started looking for a side investment. They figured investments with a safe 3% return didn't make much sense. If they were

going to make money, they might as well take a gamble on getting a decent return—say around 500%. "I decided it was time I stopped giving away my bright ideas," says Wells, "like the one I had about starting up a fishing industry in Bermuda."

As they saw it: (1) Anyone out of college can run a business; and (2) if you give the public what they want, you make money. Under their psychologists' hats, they felt pretty sure they knew what people wanted—a restaurant-haven designed for the intelligentsia.

Here and there is a snag. Since the coffee-house opened, Wells and Krone-meyer admit they've found running a business somewhat more complicated than they'd expected. In six weeks, they've had three different managers; one is suing them for a share of the profits.

Now that the coffee-house is percolating smoothly, the partners have even bigger ideas they can't wait to try out. Come summer, they plan to open an adjoining outdoor wine garden. That, they think, may be even more fun.



**PITCHMAN TACTICS** plus artistic sense bring art and book buyers into Faulkner and Picher's Main Street Bookstore.



**ART EXHIBITS** keep traffic flowing through store. Here customers examine 50 Best Books display of Institute of Graphic Arts.



**HARD-TO-FIND BOOKS** are easy to find at Main Street, which stocks current titles as well. Picher (left) talks with customer.

### III. Try Showmanship

Last week in Chicago, members of the American Institute of Graphic Arts and other groups devoted to design, fine printing, and book production drank champagne at a reception in the gal-

leries of the Main Street Bookstore on N. Michigan Ave. It was the opening of the institute's annual exhibit of the 50 best-designed books of the year.

• **Made the Grade**—Choice of the Main Street Bookstore for the exhibit was a feather in the caps of Joseph Faulkner and Stanton Picher, the store's eager

young owners. It meant they had arrived as sellers of fine art and literary items—even though to do it they let loose a flair for showmanship that would probably appall any old-style, conservative dealer in art and rare books. The boys gently refuse to confirm it, but story has it that one of



them once chased a Chicago millionairess three blocks to tell her she could buy a \$1,500 painting if she would only give him \$10 down and let him bill her after she had paid her income taxes.

But it takes something more than pitchman tactics to build up a clientele ranging from wealthy art collectors to white-collar workers from the neighborhood stores and offices. Faulkner and Picher have it: sound literary and artistic taste and shrewd business judgment.

• **The Place to Go**—Faulkner and Picher were graduate students at the University of Chicago when they decided to go into the bookstore business. In 1940, with \$5,000 capital, they opened the first Main Street Bookstore in a cramped space next door to the present store. Their aim then was to make their store the place to go for hard-to-find books and literary items.

In 1946 they decided to expand the business by adding a phonograph record department, a rare book room, and art gallery. A year and a half ago, they opened their new store, with more than twice the original space. In the first year there, total sales more than doubled; in the past six months they've gone up another third.

Since profit margins in book selling are narrow, the partners' aim now is to make the book department carry their operating costs, depend on higher margin art, records, and an outstandingly successful Christmas and greeting card business for their profits.

• **Each to His Own**—The book department is Picher's baby. He keeps it well stocked with current books, art books, books on psychiatry and psychology, general but not current literary works hard to find in the usual commercial bookstores, and imported books.

Faulkner's specialty is the art end of the business. Art dealers have always found Chicago a tough town to sell in, he says, because wealthy Chicago art collectors have always preferred to do business with the well-known New York dealers. To compete with this New York pull, Faulkner buys his own selections abroad, then frankly undersells the New York dealers. He can afford to do so because he carefully chooses the modern paintings he buys with his customers in mind, and can sell them for less than New York galleries because his business doesn't depend on art sales alone.

• **For Novices, Too**—Faulkner insists that about half his sales are made to new buyers who are starting out in a small way. The rest are wealthy collectors, many of whom, because of inflation, want to invest in something which will increase in value over the years.

On the whole, Faulkner keeps pretty well to a \$50 to \$1,000 price

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range. "We have little trouble selling modern French originals at around \$500," says Faulkner, "but higher-priced paintings are of course harder to find buyers for." Highest priced painting Faulkner has sold was \$5,000. Many of his customers buy on the instalment plan.

• **Exhibits**—Among the feature attractions at the Main Street Bookstore are the occasional exhibits of modern art which Faulkner puts on. Since the galleries opened in October, 1950, he has had shows of Paul Klee drawings; two exhibits of Toulouse-Lautrec, including the first complete showing of his posters in the U.S.; and a lithograph showing which sold out; the first U.S. showing of the paintings of Hans Enri, which also sold out; and exhibits of such French moderns as Rouault, Chagall, and Braque. In fact, just about all of Faulkner's exhibits are first U.S. showings imported direct from Europe.

• **Variety**—On his annual art-buying trips to Europe, Faulkner picks up whatever unusual ceramics, small sculpture, and art objects he thinks he can sell as well. But the partners have no ideas of turning their store into a gift shop.

A big chunk of the store's volume comes from a large assortment of Christmas and greeting cards in a wide price range; the partners describe the volume only as "fantastic." "We have customers for Christmas cards from all over the Midwest," Picher says, "customers that we never hear from any time but at Christmas."

The record department draws a lot of traffic to the store, too. The partners do nothing half-way, stock just about any LP record—the only kind they carry—you could want.

• **Always Something**—Whatever they're selling, there's never a dull moment at the Main Street Bookstore—if the partners can help it. Each art exhibit opens with a party or reception for invited guests. When there aren't any receptions in the offing, the boys stage autograph teas heralding new books by local authors, lectures by such people as Mortimer Adler, father of the Great Books discussion groups. Faulkner has latched onto TV too, where he often shows paintings from his exhibits.

One smart business move is to keep the Main Street open every evening until 9 o'clock—the only downtown bookstore in Chicago to do so. In the fall and winter months, Main Street does one-sixth of its business in the evenings. In the summer when evening strollers on Michigan Ave. drop in to browse, the store does close to one-third of its volume after 6 p.m. "With only two men in the store in the evening, the overhead is so low we can't afford not to stay open," Picher explains.



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a handy replaceable top to close the can after the seal is broken. It can be made inexpensively and in vast quantities.

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And over the years this can and other containers with similar features have become recognized as ideal packages for many other products such as shortening, nuts, dry milk, tobacco, bland lard, pressed oats, dry powdered baby food, candies and confectionery.

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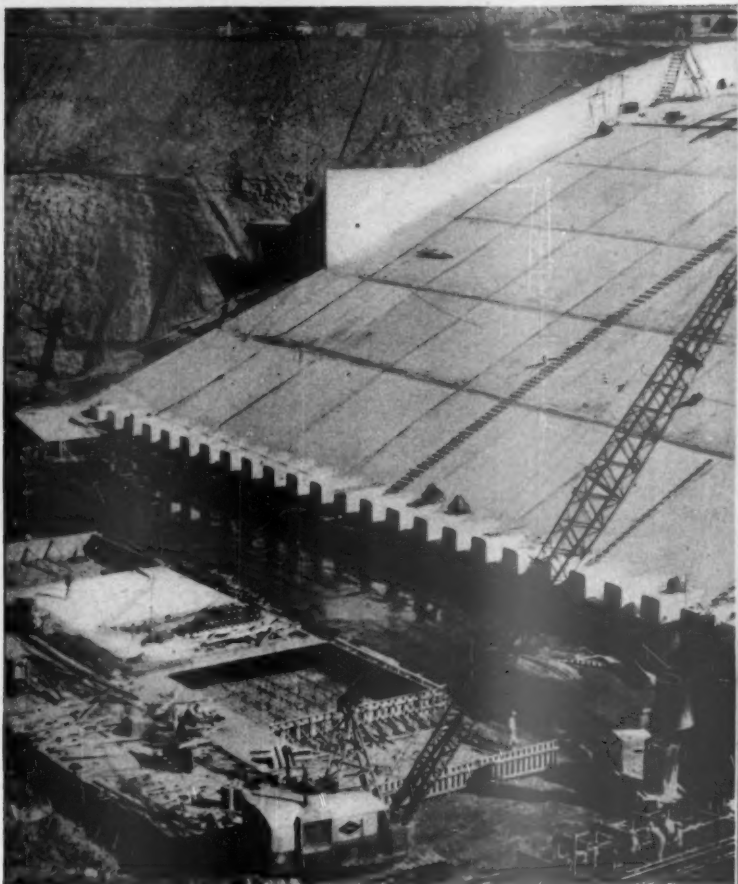
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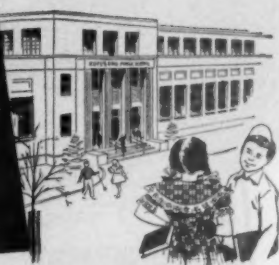
Things have never looked so bright in thirsty Santa Barbara, Calif. For the first time since the days of the early Spanish settlers, the area is sure of getting as much water as it wants.

Santa Barbarites started rejoicing when the Bureau of Reclamation announced that work on the \$34,193,000 Cachuma water project, begun in 1950, had passed the halfway mark. Santa Barbara and nearby Montecito are already slaking their thirst from an emergency supply from mountain strata intercepted during boring of the main Cachuma project tunnel.

• **An Old Sore**—Water has been one of Santa Barbara's biggest worry ever

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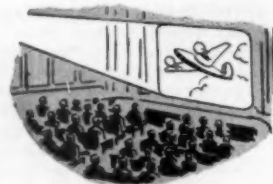
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**TECOLITE TUNNEL** through Santa Ynez mountains will divert water to south coast of Santa Barbara County.

since it was founded in 1786. Today Santa Barbarites use one-third more water than all existing sources can dependably supply, says Richard L. Boke, regional director of the Bureau of Reclamation at Sacramento.

The city did get a dam and a 500,000-gal. reservoir in 1806, but both were practically obsolete before they were finished. Since then, the region has depended on underground reservoirs. But these have been overpumped and are diminishing too fast for comfort—especially for farming areas.

In fact, Boke says, if the overpumping goes on much longer without additional supply, more than one-half of the presently irrigated land in the Santa Ynez Valley and the south coast will have to revert to dry farming.

Not only will the Cachuma Project take Santa Barbara and nearby farm country off their immediate tenterhooks, but it should satisfy their water needs for at least 60 to 80 years, Boke says.

• **All the Trimmings**—When the system is finished in the spring of 1954, these will be its main features:

• **Dam and reservoir**, which will yield Santa Barbara and adjacent water districts 33,000 acre-feet per year.

• **Tecolite Tunnel** 6.4 mi. long, which will divert water from the reservoir to the south coast of Santa Barbara County.

• **South Coast Conduit** 28 mi. long, to carry water to Santa Barbara and the Montecito, Galeta, Summerland, and Carpinteria water districts.

• **Worth-While**—The bureau estimates that, all told, the project will supply irrigation water for 30,000 acres at a cost of \$25 an acre-foot. About 40% of this land is now watered by the fast disappearing underground reservoirs. The other 60% isn't being irrigated at all. Domestic and industrial water will cost Santa Barbara \$35 an acre-foot.





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with Lusol," said another.

"Grinding wheels require less dressing, finishes are finer—thread chasing and tapping go fast, without tearing—no dermatitis, no odors, no rusting;" with reports like these all through the shop, no wonder they've practically standardized on Lusol for machining and grinding.



"Look how clean these threads are, and our chasers and taps last a lot longer with Lusol".

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*case histories of Lusol at work*

**A GEAR MAKER**—Never got more than 4 pieces per hob tooth with the old coolant. Put a 20:1 Lusol solution in our gear hoppers, and now we get as high as 22 pieces per hob tooth.

**UNIONS COMPLAINED** of too much smoke in a machine shop; insisted on new, powerful exhaust fans which would have required a greatly expanded heating system. Because there's no smoking when you're cutting with Lusol, that was the solution offered.

**A PLANT SUPERINTENDENT**—"Where have you been for the last two years?" exclaimed this man, when he saw how drilling operations and turning on their Warner & Swasey lathes had been speeded up with Lusol.

**A TOOLMAKER**—"I haven't found anything that works as well as Lusol on thread chasing and tapping high carbon steels."

\*Users' names furnished on request.



### FREE BOOK

Get complete facts about Lusol by writing for this 20-page booklet. It contains information on machine cleaning, maintenance of Lusol solutions, elimination of dermatitis and odor in machines, plus many case histories of Lusol at work. Write F. E. Anderson Oil Company, 211D, Portland, Conn.

## NEW PRODUCTS



### Packaged Food Portions

Institutions are leaning more and more to control of food portions. It saves labor and cuts down waste. Products that are bought in individual serving containers can be placed on the table without further preparation, and in an amount calculated to avoid excessive waste.

The Kraft Foods Co. is already packaging jelly and jam in individual portion containers of Vinylite plastic. It expects to extend the use to cheese, salad dressing, and condiments.

Right now, Kraft is selling the individual portion idea only to institutions. Later it may be introduced to the home in the form of hostess packages containing jellies and condiments.

• Source: Kraft Foods Co., 500 Peshtigo Court, Chicago 90, Ill.

### Insulation Foils Damp

Moisture tends to form on air conditioning ducts carrying cool air in warm humid areas. This destroys much of the advantage of many duct insulating materials. It may result in dripping water and damage to stock or equipment.

Fiberglass insulating panels with a built-in wall of asphalt and kraft paper will stop the condensation in most cases, according to Owens-Corning Fiberglas Corp.

The Fiberglass vapor-seal duct insulation can be attached to the ducts as simply as present semirigid insulation and can be painted with an asphalt-base aluminum paint or covered with canvas and then painted.

• Source: Owens-Corning Fiberglas Corp., Toledo 1, Ohio.

• Price: About 17¢ per board foot.



Imaginative visualization of the radar screen that guards our coasts.

## for a giant stockade... along Freedom's Shores

Far have we come from the log stockade of our pioneers... to a radar "fence" stretching miles into the sky. Of course, radar towers and equipment are aluminum... for strength, light weight, rustproof durability. Just as pontoon bridges are aluminum, and bazookas, vital parts of tanks and trucks, the wings and bodies of all our planes. Even in the shipping of rations and supplies, aluminum is essential... moisture-proof aluminum foil. The military uses multiply.

And civilian uses expand amazingly. Aluminum is used more and more for television... transmitters and receivers as well as antennas. The home where you enjoy TV is enhanced in comfort and value by aluminum windows, rain troughs, reflective insulation. Aluminum makes all your home appliances more efficient. And protective aluminum foil packages gleam on your pantry shelves... with a special place for Reynolds Wrap, the original and genuine, the pure aluminum foil.

Military needs come first, but the goal of today's production expansion is more aluminum for civilian use, too. We face a double job: fighting shortages and inflation while we fight aggression. Reynolds is working at that double job full time, full speed.

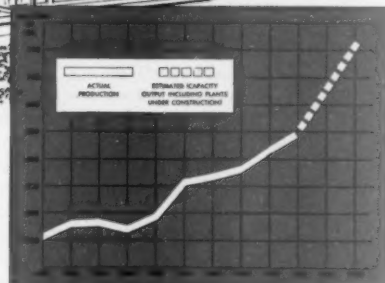
Reynolds Metals Company, General Sales Office, Louisville 1, Kentucky.



Defense needs limit Reynolds Wrap  
...Return Flight Guaranteed!



Reynolds Aluminum extrusions, as used for radar towers, also make the strong yet gracefully slender frames of windows.



The expanding primary aluminum production of Reynolds Metals Company—a historic chapter in the company's 33 years of continuing growth.



# REYNOLDS ALUMINUM

"The Kate Smith Evening Hour" on Television, Wednesdays—Tallulah Bankhead in "The Big Show" on Radio, Sundays—NBC NETWORKS

**MILLS**  
*Movable*  
METAL WALLS

**PERMANENTLY  
DISTINCTIVE**

*...yet easily adapted to  
changing needs*

**T**ODAY'S BUSINESS INTERIOR must reflect solidity and permanence, refinement and good taste—and at the same time be easily adapted to changes in space requirements. Mills Movable Metal Walls are designed to meet this need.

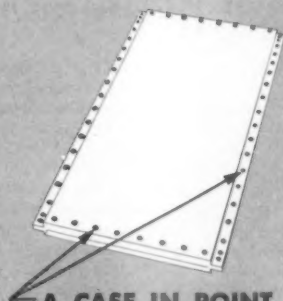
Solidity and permanence are achieved by exclusive Mills features like all-welded panel construction and sound-deadened panel surfaces. They are insulated and sound-proofed, and correctly engineered for structural stability. Of refined architectural design they are available in a wide range of attractive colors in baked-on finishes specially treated to eliminate harsh light reflection.

As space needs change Mills Movable Metal Walls may be rearranged to fit the new layout—quickly, easily, and at low cost. The entire change can often be made overnight or during a week end.

*We'll be glad to send you a 48 page easy-to-read booklet that will give you full details. Just ask for Mills Catalog No. 52.*

**THE MILLS COMPANY • 967 Wayside Road • Cleveland 10, Ohio**

*Financial Vice President's Office  
Service Pipe Line Company  
Tulsa, Oklahoma*



**A CASE IN POINT**

Mills panel sheets are welded to panel frames—an exclusive construction feature for which there is no quality substitute.

**SPECIFY MILLS FOR**

All-Welded Panels • Sound Dead Surfaces  
Glareless Finishes • Scientific Sound-proof-  
ing • Easy Erection • Maximum Mobility  
Superior Architectural Design

*Movable*



## Simplified Flaw Test

Met-L-Chek says its dipping process for detecting cracks and pores in manufactured goods uses only two solutions, dye and developer.

The parts to be checked are dipped in a red dye, which is then washed from the surface with water. Next the parts are dipped in white developer. The developer sucks the dye out of the cracks and leaves a bright red stain to indicate flaws.

Ferrous or nonferrous parts, ceramics, glass, and plastics may be used with the new process, according to the manufacturer.

• Source: Met-L-Chek Co., 121 North Prairie Ave., Hawthorne, Cal.

• Price: \$25 per gal. for dye. \$12.50 per gal. for developer.

## Robot Counterman

A revolving turntable and a conveyor belt have been added to the conventional supermarket check-out counter by U. S. Store Fixture Co.

After the cashier has checked the groceries and totaled the bill, she moves a knee-controlled switch, and the turntable moves the products on to the conveyor belt. The conveyor belt then carries the items to either of two baggers. The new counter, called Sir Eato by the manufacturer, may cut in half the number of counters needed by a supermarket.

• Source: U. S. Store Fixture Co., 3519 St. Clair Ave., Cleveland 14, Ohio.

• Price: \$1,490.



## Tools in the Doghouse

Extra room for tools, bicycles, and children's playthings that crowd the garage may be obtained by attaching a Hide-Away storage building to your garage. The unit, 6 ft. long and 4 ft. wide, costs \$75. It's sold by Clayton & Lambert Mfg. Co., Louisville 10, Ky.

# Do you use films in your business?

New ultra-simple  
RCA "400" projector  
makes film showing  
4 ways easier!



### So simple you can...

1. Set up in 2 minutes
2. Thread film in 30 seconds
3. Pack up in 3 minutes
4. Carry like an overnight bag

You get all this ease of operation... plus the *clearest picture* and the *sweetest sound* you've ever seen and heard on any 16mm projector. *Quality projection*... the kind that puts *added impact* into your sales story or training message.

### No more last-minute failures

This projector is built for *business*... for fast, easy, reliable operation under rough commercial usage. Both projection lamp and exciter lamp can be replaced in just *seconds*. It's *easy* on

the film, too. You can project the same film 50 or 500 times *without appreciable wear or damage to film*.

### Try RCA "400" in your business

Before you buy *any* projector, try RCA. Set it up. Thread it. See the brilliant RCA picture. Hear the rich clear RCA sound. Pack it up. Carry it. *Then compare it with any other projector on the market.* You'll quickly see why it's the growing favorite with businessmen everywhere.

### More details? Mail coupon TODAY!

Visual Products, Dept. 26DB  
Radio Corporation of America, Camden, N. J.

Without obligation, please send me full story on the new RCA "400" projector that I can set up in 2 minutes, thread in 30 seconds, pack up in 3 minutes, and carry like an overnight bag.

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



**RADIO CORPORATION of AMERICA**





# Public Utility

## finds rubber-tired dozer fits stockpile problems



At Wireton, Pa., Duquesne Light Co. generates electricity for the Pittsburgh area. 3000 tons of coal per day, 7 days a week is consumed. Coal is received 5 days per week, weather, mining conditions, and labor permitting. When possible, coal is dumped direct to plant hopper for conveying to crusher and boilers. Coal in excess of daily needs is dumped on stockpile where a 5-ton clamshell feeds it to plant hopper when car-to-plant supply runs short.

Recently Duquesne brought in a rubber-tired Tournadozer to doze coal from pile to crane. Rig proved so handy, it also levels, compacts coal on stockpile . . . transfers coal in self-loaded scrapers on long-haul supply . . . cleans foot of pile after truck dumping.

### Tournadozer beats crawlers, 3 to 1

In addition to Tournadozer, 2 crawler-tractors haul scrapers on coal distribution service. One also carries a dozer blade. Job

studies show 60% of tonnage (from 1800 to 2160 tons per day) is handled by the one Tournadozer, 40% by the two crawler units.

Tournadozer also supplements coal distribution by "switching" in loaded coal cars over level siding, handling as many as 12 in a string. In spare time, rig does road maintenance, removes snow, and pushes trucks bogged-down on stockpile.

Ability to get these widely-scattered jobs done faster and easier is made possible by Tournadozer's 19 m.p.h. "drive-anywhere" mobility. If you are considering a new coal stockpile or expanding your present operation, ask your LeTourneau Distributor to show you how these high speeds can help you.

**R. G. LeTOURNEAU, INC.**  
Peoria, Illinois



## NEW PRODUCTS BRIEFS

A smoke alarm for air-conditioning units will either give the alarm or shut down the unit, or even do both. The new alarm is easy to install, says the manufacturer, Ess Instrument Co., 95 S. Washington Ave., Bergenfield, N. J.

Sponge yarn, the household sponge in 4-in. rope form, has been made into mops and cleaning mats by E. I. du Pont de Nemours & Co., Wilmington, Del. The new mops and mats soak up more water, save time by needing fewer trips to the bucket or sink.

A luminescent strip for creating special effects in theater lobbies and corridors can be used as a guide line in darkened aisles. Made by Rudel Floor Strip Co., Inc., 3709 Third Ave., New York, N. Y., the strip is set into marble-type floors—the same way as standard metal strips.

Metal shavings and pure rubber latex get together to make Dasco Co.'s (1602 Thames St., Baltimore, Md.) Redit-Patch for heavy-duty floor patching. The patch sets immediately and stands up under truckloads of 20 tons, says Dasco.

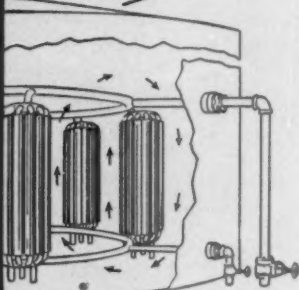
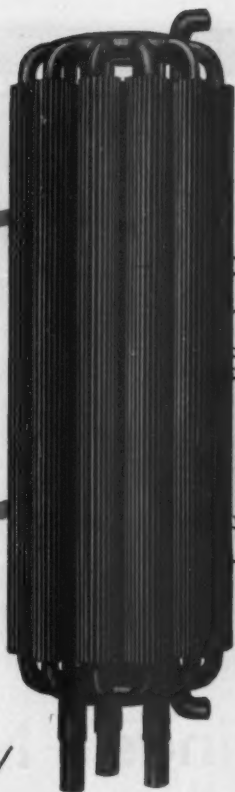
A pocket-size stereo viewer is what David White Co., Milwaukee, Wis., claims for its "Realist Handi-Viewer." The low-priced, compact viewer has the same lenses, illuminating system, and picture size now used in larger units, according to the manufacturer, but will be small enough to fit into a man's suit coat pocket.



## Plastic Markers

Plastic tags can be used to mark rose bushes, water pipes, typewriters, or the next day's work. These plastic Ray-Tags, which may be printed with an advertising message, are made by Ray-Craft, Inc., 1255 W. 4th St., Cleveland 13, Ohio.

# BROWN FINTUBE Thermo-Flo TANK HEATERS



## ...Greatest Improvement in Tank Heating in 30 Years

Brown Fintube Thermo-Flo Tank Heaters are more efficient, and usually *cost less plus their installation*, than the cost of just installing equivalent capacity of old fashioned bare pipe coil in the bottom of the tank.

Brown Thermo-Flo heaters mount vertically, on adjustable legs about 12" above the tank bottom, thus preventing depositing on the tubes; and avoiding the lost efficiency of heating the tank bottom, and a layer of sediment. The bottom of the tank is uncluttered and easy to clean. The entire surface of the fintubes is exposed to the tank contents. Material adjacent to the fintubes is heated quickly and rises rapidly, forming a thermal syphon or flow past the fintubes; keeping the heating surfaces clean; assuring extremely

efficient heating; and preventing any stratification of temperature or gravity in the tank.

### TYPICAL INSTALLATIONS IN MAJOR REFINERIES

*Purchased on the Basis of Proven Advantages*

Tank Farm No. 1.....	81 Heaters
Tank Farm No. 2.....	114 Heaters
Tank Farm No. 3.....	76 Heaters
Tank Farm No. 4.....	110 Heaters
Tank Farm No. 5.....	51 Heaters
Tank Farm No. 6.....	42 Heaters
Tank Farm No. 7.....	294 Heaters
Tank Farm No. 8.....	74 Heaters

*Above heaters being used to heat viscous crude oils, lubricating oils, tar, asphalt, etc.*



## BROWN FINTUBE CO.

HOME OFFICE and WORKS • ELYRIA, OHIO

Send for Bul. No. 491  
IT WILL GIVE YOU IDEAS



*Fintube*  
Sectional Helipin  
Heat Exchangers



*Fintube*  
Heater for  
Storage Tanks



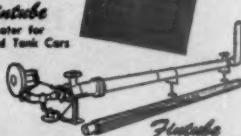
*Fintube*  
Suction Heater  
for Storage Tanks



*Fintube*  
Heater for  
Processing Tanks

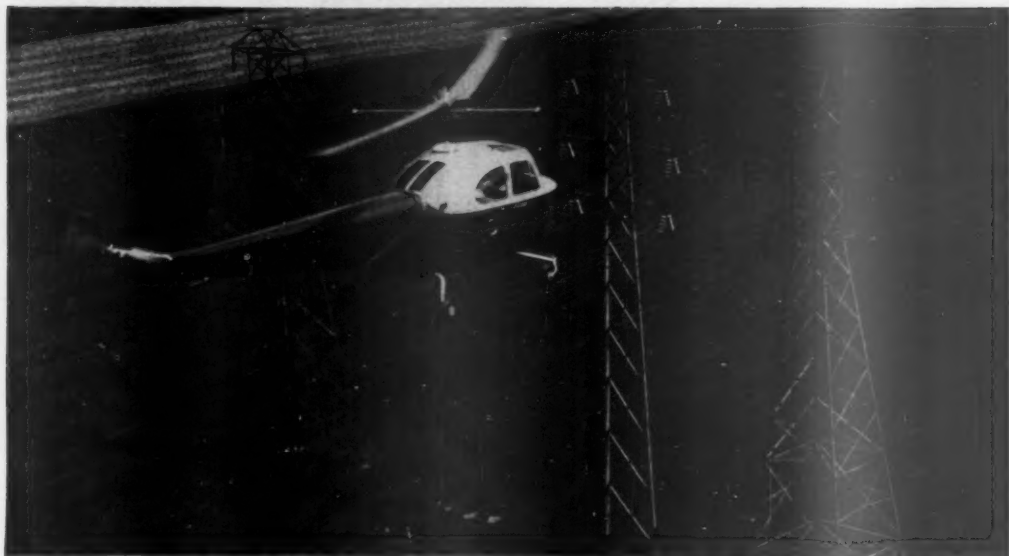


*Fintube*  
Heater for  
Railroad Tank Cars



*Fintube*  
Direct Fired  
Air Heater

## PRODUCTION



COPTER INSPECTS POWER LINES at fast clip, eliminates ground team. It has also been used to string lines in rough country.

# Industry Finds a New Workhorse

(Story on page 150)



SPOTS TUNA, TOO: It can serve as fishing fleet scout. Copter above settles down on tuna boat equipped with landing platform.

# CREATING NEW WEALTH FOR AMERICA

INTERNATIONAL MINERALS & CHEMICAL CORPORATION



Ac'cent is produced at International's Amino Products manufacturing plants at San Jose, California, and Rossford, Ohio.



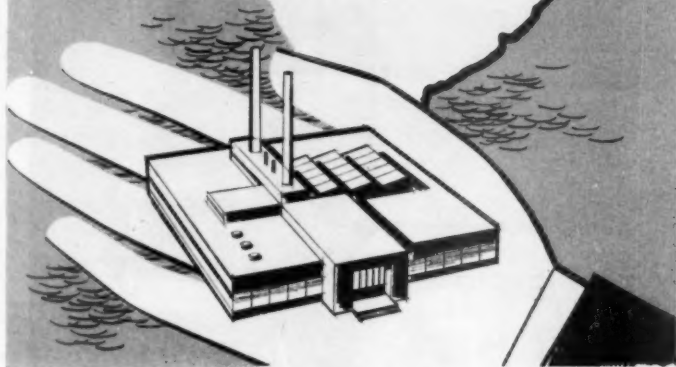
*International has created a basic new American industry by utilizing rich vegetable proteins for the production of Ac'cent, the seasoning that enhances natural food flavors, and certain Amino Acids required for pharmaceuticals that guard your health.*

**INTERNATIONAL MINERALS & CHEMICAL CORPORATION**

General Offices: 20 North Wacker Drive, Chicago 6

PHOSPHATE • POTASH • PLANT FOODS • CHEMICALS • INDUSTRIAL MINERALS • AMINO PRODUCTS

# BUILD YOUR PLANT IN SOUTH CAROLINA FOR LOWER CONSTRUCTION AND PLANT SITE COSTS\*



Land is plentiful in South Carolina and plant sites are often 50% cheaper than areas outside of the South. New industry can build as it wishes without too much regard for land space necessary.

South Carolina construction costs are lower, too. In addition to normal construction economies on labor and materials, South Carolina's gentle climate means more building days, also less heavy construction is needed to combat weather. The abundance of rural workers and easy transportation eliminates the construction of plant villages.

## LOCATE YOUR PLANT WITH THESE EIGHT ADVANTAGES:

- Happier, more productive workers
- Cooperative State and Local Government
- Nearness to markets
- Gentle climate
- Wealth of natural resources
- Abundance of water and power
- Splendid transportation (land, sea, air)
- \* Low construction and site costs

Your inquiry will be handled in strictest confidence. Write, wire or telephone (LD 94) now.

Charles N. Plawden, Director  
Research, Planning and Development Board Dept. BW 4—Columbia, South Carolina

\* Write Now For FREE Folder Describing South Carolina's Industrial Advantages

# South Carolina



**"... helicopters are putting new twists on old essential services for industry..."**

HELICOPTERS starts on p. 148

You name it, the helicopter will do it—if not right now, just as soon as military demands permit manufacturers to build more helicopters for industrial use.

Around the world, helicopters are putting new twists on old essential services for industry. Power companies are using them to string electric cable in England and Canada. They spray and dust crops from Africa to the Philippines, from Canada to the Argentine. They transport executives in New England and Texas, help in mineral and oil surveys, and even have been used to spot whales in the Antarctic and tuna in the Pacific.

• Versatile—All this is done by a machine that went into commercial use just six years ago, only to have its growth in industry stunted by the Korean War four years later.

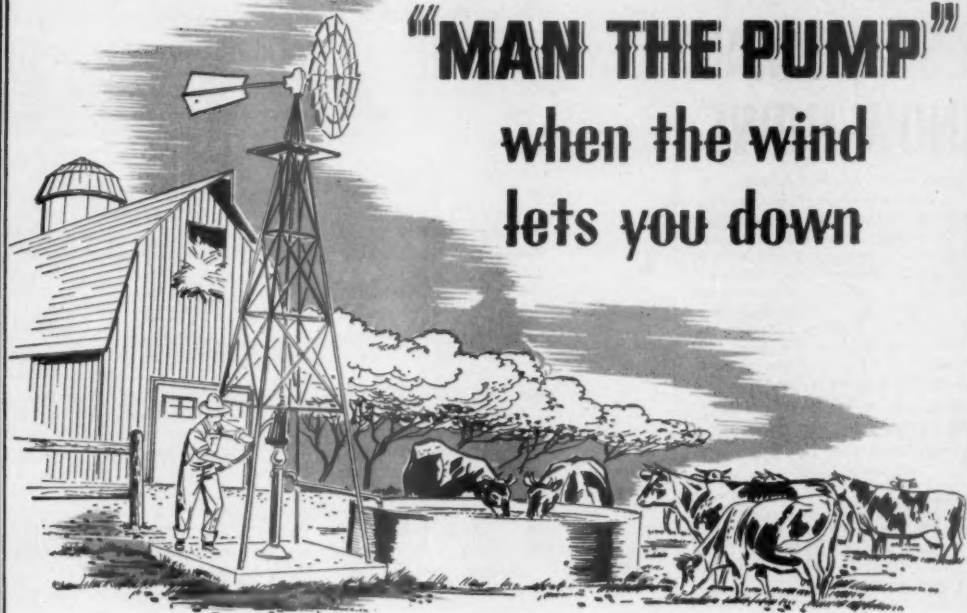
The value of the helicopter as a tool of industry lies, of course, in its unusual ability to maneuver easily and accurately. This skill it owes to the fact that it combines the airplane propeller and fixed wing into one large propulsive and lifting unit—the rotor—that sits above the fuselage. Through a system of versatile controls that change the rotor blade angles, the copter can fly at 120 mph. and slow down to a dead stop for hovering above a point on the ground. It can fly backwards or sideways, up or down as if on a string. It can land and take off vertically in a clear space just large enough to allow the rotor to whirl.

• Can Do It Better—Just three months after the first commercial helicopter license went to Bell Aircraft Corp.—on Mar. 8, 1946—Bell copters were spraying and dusting crops. The conventional plane can do this job, too, but the copter has a big plus in its rotors.

The downwash of air from the turning blades forces the spray or dust straight down as it comes from the storage tanks. This action coupled with the helicopter's slow speed splashes the spray off the ground to coat the hard-to-reach, underside of the leaves. The copter's maneuverability enables it to cut around close to trees and other obstacles, so it doesn't have to make repeat runs.

The helicopter's knack for spraying is a boon to the railroads. Some of them hire copters to spray and destroy the brush along rights-of-way. It's quicker and cheaper than hand-spraying, and, again, the fixed-wing plane can't do it






When air currents abate, the farmer must supply the energy, unless there is a motor to take his place. At the mere flip of a switch, this time-consuming task can be eliminated.

It was during the 1890's that Emerson-Electric was founded . . . a company which has since become a leader in producing motors which have taken over so many farm chores. Today electric power has

nearly 200 farm applications. The hired hand has truly been replaced by the "wired hand."

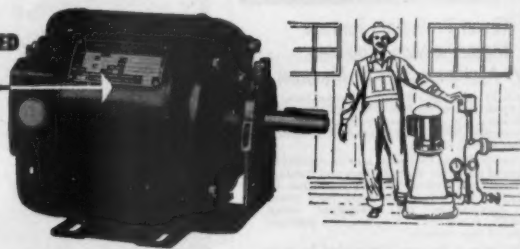
Emerson-Electric has earned an enviable reputation for dependability and efficiency in its motors on the farm, in the home, in business and industry. Your inquiry is invited on this complete line, in horsepower ratings from 1/20 to 5. THE EMERSON ELECTRIC MFG. CO., St. Louis 21, Mo.

**MODERN FARMING IS POWERED  
WITH ELECTRIC MOTORS**



**HERMETIC  
MOTORS**  
1/2 to 10 H. P.

Emerson-Electric offers manufacturers of hermetically sealed units a broad background of engineering experience, covering all phases of hermetic motor design, specification and performance. In addition, unequalled, specialized facilities are available for the production of hermetic motor parts. Cooperative engineering service is available without charge. Write us today for Free bulletin No. T56



**EMERSON ELECTRIC**  
MOTORS • FANS      APPLIANCES

**LEADERS IN THE FAN AND MOTOR INDUSTRY SINCE 1890**

# U. S. BUSINESSMEN CASH IN ON WEST GERMAN KNOW-HOW!

At West Germany's Hannover Fair—Apr. 27-May 6—U. S. businessmen will see more than 4,000 exhibits that include: machinery, optical goods, precision instruments, iron and steel products . . . everything used by U. S. industry. This is Europe's most important industrial fair . . . gives U. S. businessmen chance to trade easily with European leaders, explore production facilities, visit factories, profit from West German know-how, efficiency, short-cuts. Ask your travel agent to arrange fast flight direct to Hannover.

Write or call for full, FREE facts to:

**GERMAN-AMERICAN TRADE PROMOTION**  
Dept. B1, 350 Fifth Avenue, New York 1, N. Y.  
Wisconsin 7-0727

**Hannover**  
INDUSTRIAL Fair  
APRIL 27-MAY 6

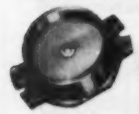


## Klixon Protectors Reduce Motor Service Problems Says Appliance Service Manager

ST. LOUIS, MO.: Mr. Robert Johnson, Service Manager of one of St. Louis' largest appliance distributors, the AKA Distributing Company, recommends Klixon Protectors for motor burnout protection.

"The use of Klixon Protectors on motors in our line of domestic refrigerators and freezers has greatly reduced our service problems. In our experience, motor burnouts have never been encountered on equipment using Klixon Protectors. We heartily endorse the use of this device."

The Klixon Protector illustrated is built into the motor by the motor manufacturer. It keeps motors in such equipment as refrigerators, oil burners, washing machines, etc., working by preventing the motors from burning out. Reduce service calls, minimize repairs and replacements, request equipment that has motors with Klixon Protectors.



Automatic  
Reset

**KLIXON**

**SPENCER THERMOSTAT**  
Div. of Mathis & Controls Corp.  
2604 FOREST STREET  
ATTLEBORO, MASS.

nearly so well because it can't safely fly low enough.

• **A Hit With Power**—Because the copter does such a good job of power-line inspection, many large power companies have discontinued ground controls completely. With ground crews, living quarters and storage building posts, costing about \$20,000 each, had to be spotted all along the line, 20 to 30 mi. apart. Two of these installations would buy a two-place copter, with money left over.

The companies now use copters not only to spot breaks but also for preventive maintenance. Pilot-observers, flying 50 ft. or so above the lines, can spot trouble and have it corrected before a break occurs.

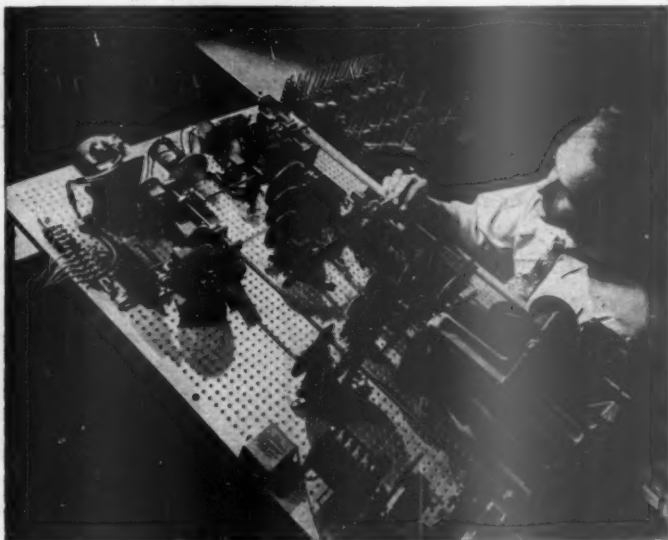
• **Stringer**—Another power company use recently popped up in England. The Midlands Electricity Board had to string a cable across a heavily wooded valley. To avoid felling the trees, a copter was hired and strung the cable 1,280 ft.

A big Canadian construction project is going to use a large, transport-type helicopter to string cable—and then some. The new 10-place Sikorsky machine, now being built, will tote a useful load of nearly 2,500 lb. It will haul transmission-line towers to rugged peaks of the Canadian Rockies, then string electric cables between the

towers to carry power 50 mi. from a new hydroelectric plant to a new city of 50,000 and the smelter of the Aluminum Co. of Canada, 400 mi. north of Vancouver. The military has O.K.'d this copter because the project has high defense priority.

• **A Cinch for a Copter**—Flying a party of geologists or surveyors into rugged country is another easy job for a copter: It can land in any clearing large enough for them to pitch their tents. The machine is also a find for ferreting out mineral deposits. With a magnetic device, a copter can survey 800 to 1,000 sq. mi. a month. The fixed-wing plane is not nearly so good at this, since it has to fly comparatively high to be sure of clearing obstacles, then decreasing magnetic effects. The copter, on the other hand, flutters along, as the air men say, "on the deck."

Here is one job in which the copter did itself proud. Discovery of rich deposits of iron ore in the Ungava region of Labrador called for the building of a 350-mi. railroad to haul the ore to the St. Lawrence river. Helicopters flew men and equipment over the desolate terrain to small landing spots to get the building projects under way while the railroad was being built. The copters surveyed the route for the railroad, made recruitment of labor easier because it was agreed that a ma-



## Making a Rough Model Smooth

Manufacturers often throw together rough models of a newly designed control or instrument. But engineers of Lewis Flight Propulsion Laboratory, Cleveland, have given their haywire models some polish—and saved time—with this make-up board. Parts are fastened at any angle to the board. That way, engineers can get dimensions for final design. The Lewis lab is a division of the National Advisory Committee for Aeronautics.

## YOUR NEW PLANT WILL GROW IN THE ERIE AREA



*Recognize this town? It is one of many medium-sized towns in the Erie Area that offer industry many advantages.*

**L**OOK, examine and check again, and you'll know why the medium-sized town is the best location for a new or branch plant.

There are many advantages in these towns, both for labor and management, including better living conditions. Another important factor: the trend to decentralization makes the medium-sized town plant location a profitable long-term investment.

You'll find many towns of this size in the Erie Area . . . along with abundant supplies of rubber, sand, lime, salt, lumber, gas, petroleum

and agricultural produce. Finished parts and products in great variety are readily available.

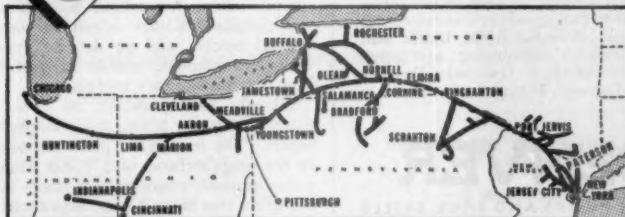
One third of America lives in the Erie Area—the center of the nation's largest single market. Industry is served by the safe, dependable Erie Railroad which connects with New York Harbor and offers its facilities for import and export trade.

Erie's Industrial Development Department, with its long experience, knows the medium-sized town well and will be glad to discuss locations with you—in complete confidence, of course!



## Erie Railroad

SERVING THE HEART OF INDUSTRIAL AMERICA



### FOR ACTION AND INFORMATION—

#### Write or Phone:

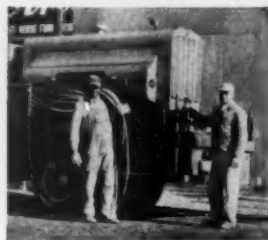
D. M. LYNN, Asst. Vice President  
Industrial Development  
Room 5008, Erie Railroad  
Midland Building, Cleveland 19, Ohio  
Cherry 1-8400

or  
Industrial Development Department  
Room 1876B, Erie Railroad  
50 Church Street, New York 7, N. Y.  
Worth 4-4300



Fire photo by Illinois State Journal and Register

## Concrete's too tough for smoke-eaters . . .



This is the truck-mounted Gardner-Denver Air Compressor called to the fire scene by the Springfield Fire Dept.

but not for

## GARDNER-DENVER

Several firemen were overcome by smoke trying to reach the blazing basement during this \$100,000 fire in Springfield, Illinois. Then the fire department called Roscoe Niccolls out of bed—asked him to bring over his new truck-mounted Gardner-Denver Air Compressor.

Niccolls, a local construction contractor, rushed to the scene and minutes later had a veteran employee—armed with a Gardner-Denver Paving Breaker—cutting holes through the heavy concrete floor that was holding up the battle. Firemen then poured water through these holes, and had the fire under control in half an hour.

This report shows one reason why owners of Gardner-Denver equipment find Gardner-Denver quality so valuable. In any emergency—Gardner-Denver Compressors, Pumps, Rock Drills and other pneumatic equipment are completely dependable. Gardner-Denver Company, Quincy, Illinois.

A Gardner-Denver Paving Breaker like this quickly cut through heavy concrete as firemen could reach the blazing basement.



SINCE 1859

## GARDNER-DENVER

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS

chine would be available at all times to fly injured workmen to a hospital.

- **No Job Too Tough**—Speeding the search for oil, the copter has proved a valuable aid in geophysical operations, especially in swamp and marsh areas. Gulf Oil used two copters equipped with pontoons during a seismic (shock recording) survey of the Lake Hermitage Dome in the delta region of Louisiana. The copter aided in spacing shot holes along 5½-mi.-long radial lines for probing the underground structure, carried and placed more than 22,000 lb. of dynamite, and moved personnel and equipment from site to site. Boats could have been used to transport crews and equipment, but at a speed of about 3 mph. The copters did the job at twice the cost, but in less than one-fourth the time.

- **For the Brass**—Copters are traveling in executive circles as well as in the field. United Aircraft Corp. has assigned a four-place Sikorsky for executive use, frequently shuttling it between Hartford, Conn., and New York or Boston. The Texas Gulf Sulphur Co. uses a Hiller two-place job to fly executives between mining and refining points.

- **Jack-of-All-Trades**—Because the copter is a natural for landing on and taking off from the top of a building, it has been jockeying mail and express to and from a Los Angeles post office since 1947. Before this year is up, the operator, Los Angeles Airways, will be hauling passengers between the city and its suburbs. Another mail and express operation is being conducted in Chicago, and late this year a similar service will be started in New York by the New York Airways.

- **Worth the Money**—In all, five companies now have copters certificated to operate commercially: Bell Aircraft Corp., Niagara Falls, N.Y.; Hiller Helicopters, Inc., Palo Alto, Calif.; Kaman Aircraft Corp., Windsor Locks, Conn.; Cessna Aircraft Co.'s Helicopter Div., Wichita, Kan.; and United Aircraft Corp.'s Sikorsky Aircraft Div., Bridgeport, Conn.

The copters' big advantage is versatility, and you can't buy that for a song. Bell's machine, which carries two or three passengers, for example, last sold commercially for more than \$35,000. Hiller's copter carries two and first sold for \$19,995, then jumped sharply before commercial production was curtailed. Kaman leased its commercial models, and no definite price ever was announced; neither has a price been set for Cessna's two-placer.

Sikorsky has certificates on a two-place, four-to-five place, and a 10-place copter. The four-to-five place job sold in the neighborhood of \$70,000 when it was available commercially; prices on the other two haven't been announced.



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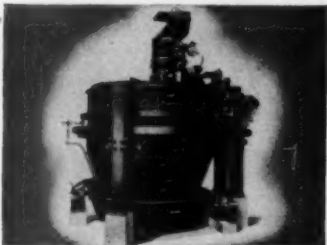
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## GAS PRODUCING BRIEFS



Coal rides up conveyor to Wellman-Galusha Gas Generators; manufactured gas flows out the pipe (right). This steel plant installation converts anthracite coal or coke to gas at less than cost of purchased gas. Producer gas has wide application to practically every industrial operation needing heat, is low in cost, burns efficiently and is clean.



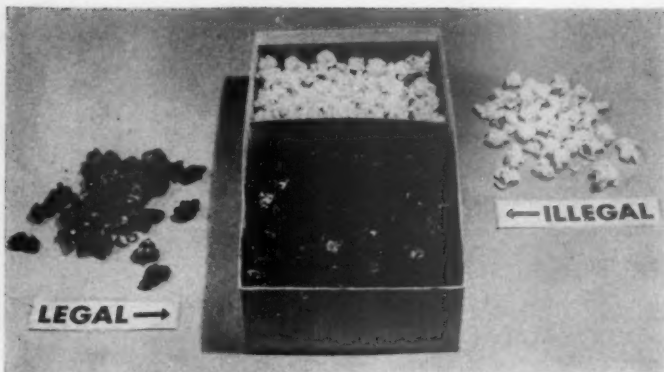
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IF IT LOOKS repulsive and tastes awful, you can use . . .

## Popcorn As a Packaging Material

Two firms are perfecting processes to make popcorn a packaging material that will meet FDA standards.

Popcorn may be destined for a bigger role than that of stuffing movie-going urchins, if the chemists can camouflage the goody as a packaging material that will pass the tough standards of the Food & Drug Administration.

Last year Winthrop-Stearns, Inc., of New York—which makes pharmaceuticals—began using the stuff as a packing for fragile products. FDA said nothing doing: Popcorn was too edible, could be boxed up for human consumption by shady operators after it was used for packing. Besides, it will attract rodents and vermin, if it lies around in warehouses.

• **Contenders**—But the idea didn't stay squelched. By-Products Processing Laboratories, Inc., New York City, has worked out a compound, called Denopack, that will denature the popcorn to FDA's standards. Winthrop-Stearns, with the help of Union Carbide & Carbon Corp., is also concocting a denaturant, and is not far behind By-Products in the development. By-Products has the edge on W-S, because its chief chemist recently cracked a similar problem of denaturing potatoes.

• **Not Repulsive Enough**—To make it suitable for packing, says FDA, the popcorn must be inedible, mildew-proof, and dyed a repulsive color. But it must also be harmless if accidentally eaten. FDA was hard to please on these points and rejected several formulas that the companies had submitted for approval. By-Products now has met all FDA's requirements; W-S is still trying to meet the one for dyeing.

Both companies started with a base chemical of sucrose octaacetate, which

got the FDA's O.K. right off the bat. It's a standard chemical that's used mostly for waterproofing paper and building materials. To that, they've added their own refinements.

By-Products says that its denaturant, which had a year's research and a few rejections, makes popcorn distasteful to humans and animals as soon as it touches the lips. It is also nontoxic and resistant to moisture.

• **Easy Process**—Both products of By-Products and W-S are applied by spraying, or by rolling in a drum filled with the chemicals. By-Products says that its Denopack can go on the corn while it is being popped, if the extra operation of application isn't wanted. Afterwards, the popcorn retains the properties that make it attractive to start with: Light weight, low cost, and resistance to shock and compression.

The processing doesn't need top-grade popcorn, either. You can get the same results in packaging from cheaper grades that are broken, or unfit for sale as a food. And the denaturants will take care of mildew, if the corn gets moldy before it's packaged.

Right now By-Products has its product in the pilot plant stage. But the company is ready to go into full production when the demand for popcorn packing builds up. Meanwhile, By-Products will be setting up its distribution in the field.

• **Who Got There First?**—The chances of a patent battle cloud the horizon. Both By-Products and W-S have patents pending. But there are big questions: Who got to the Patent Office first, and can the compounds be patented?

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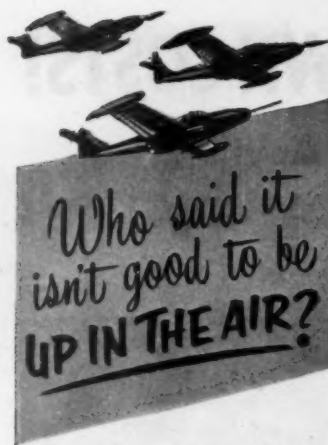
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## Big Future for Wollastonite

First commercial supplier of wollastonite will tap almost inexhaustible deposit, sees big industrial future for nonmetallic mineral—especially in ceramics and paints.

It takes two things to put a mineral to work—a commercial demand for it and an abundant supply. Not often these days, but every now and then, mineralogists come across a new mineral that has this happy combination.

• **Good and Plenty**—Latest of these minerals to find a place in industry is wollastonite, a nonmetallic mineral remarkable for its pure whiteness, uniformity, and unique fibrous structure. These qualities give wollastonite a wide range of uses—in ceramic insulators, wall tile, porcelain fixtures, in paints as an extender, and others.

Abundant supply is there, too. Last week Godfrey L. Cabot, Inc., of Boston, announced that its subsidiary, Cabot Carbon Co., had leased the largest, and purest, known deposit in the U. S. and that Cabot Minerals, a new division of the subsidiary, has been formed to go into large-scale quarrying and grinding of wollastonite as industry's first commercial supplier.

• **Black and White**—This step, Cabot's first move to diversity into the minerals field, takes the company from one end of the spectrum to the other. It is already the world's largest manufacturer of carbon black, about the blackest substance there is.

Cabot's wollastonite deposit crops out of a pine-clad hill bordering Lake Champlain, near Willsboro, New York. It lies in a seam 30 ft. to 70 ft. wide, at least 100 ft. deep, and over 2½ mi. long. The company figures reserves are at least 15-million tons. It hopes to produce 6,000 tons a year—for maybe 250 years, which is how long Cabot thinks the deposit will last.

• **Many Uses**—Cabot sees a big industrial future for its new find. Take ceramic electrical insulators. Up to now, most of these insulators have been made with feldspar, flint, and clay. The best of these, made of talc, have a dielectric strength of 240 volts per mil; that is, they will withstand a potential of 240 volt per 1/1,000 in. of thickness before they punch through. Wollastonite insulators have a dielectric strength of 350 volts per mil.

For ultra-low loss insulators, the kind that are used in high-frequency equipment such as radar, wollastonite has important applications primarily because of its exceptionally good electrical properties, secondly for its purity and uniformity. These two qualities are essential for high and consistent performances.

The Signal Corps is particularly interested in the mineral for this use. It has found in tests that wollastonite insulators have 50% to 60% less electrical loss than the best commercial insulators now made.

• **Ceramics**—There are production savings, too. Wollastonite fires at 150 to 200 deg. lower temperature than conventional ceramic material. These lower firing temperatures mean that some glazed ceramic products, such as wall tiles, need be fired only once instead of twice. Many glazed tiles will not stand up under the high temperatures of first firings and therefore are applied with a second firing at a lower temperature.

One manufacturer has been able to effect fuel savings up to 40% by changing from double to single firing, at the same time lowering the firing temperature.

Wollastonite also causes less warping and distortion. Shrinkage of wollastonite tile in the mold during firing is only about 1/4 of 1%. It is usually a full 1% with conventional tile materials.

In certain types of ceramic structures, wollastonite has proved to give up to 50% more mechanical strength than conventional fillers. Its unique fibrous structure is the thing that gives it its strength. The present theory is that its fibers, which are 13 to 15 times as long as their diameter, serve the same purpose as steel reinforcing rods in reinforced concrete. They bind the material together. This feature should give wollastonite entree into the field of whiteware—plates, saucers, tea cups,—make them less prone to break and chip.

• **Paints**—The paint industry, too, is keeping a sharp eye on wollastonite as a possible replacement for New York State fibrous talc—the paint extender it is now commonly using. Extenders are used to keep paint pigments from coagulating when the paint sits on a shelf for a long time, and to help redistribute the pigments when the paint is stirred.

One big advantage of wollastonite is that it absorbs less oil than other extenders. It has other plus factors, too. Wollastonite holds pigments at lighter, less viscous consistency than conventional extenders. And it is more wettable than fibrous talc. If you drop a spoonful of fibrous talc in a glass of water, it will sit on top of the water;

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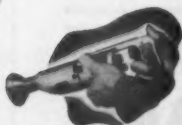
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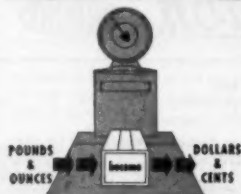
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**HEADQUARTERS FOR SCALES**

wollastonite, however, will immediately mix through the water. This is a distinct advantage for use in water base paints. Wollastonite is also compatible with latex and could be used with latex base paints.

- **Building**—Fiber grinds of wollastonite, when bonded and baked, can be sawed and drilled and otherwise treated like wood. The material can be used to make wall board and exterior sheathing of buildings. It is also being considered for use in welding rod coating, glazes and sanitary ware, silica gel, and for a paper coating pigment.

With all its advantages, wollastonite will probably cost no more than the materials it may replace. Production costs will be relatively low, since the Willsboro deposit is close to the surface and can be quarried—and the ore extracted—fairly easily and cheaply.

## PRODUCTION BRIEFS

Prefabricated buildings for the military, insulated to withstand the hottest as well as the coldest climates, will be built by Gunnison Homes, Inc., U.S. Steel subsidiary. The steel structures, demountable and portable, will be fabricated mainly in large units, for single- or two-story field hospitals, barracks, mess halls, or administration buildings.

White sidewalls are back. With the end of the ban, in effect since last February, Goodyear Tire & Rubber Co. is again manufacturing white sidewall tires.

Ceramic merger: Ryan Aeronautical Co. and California Metal Enameling Co. have combined their activities in the ceramic field. The two firms hope the merger will result in better ceramic coatings and increased production of critical ceramic parts for jet, piston, and rocket engines that operate at high temperatures.

Mass production of Boeing Airplane Co.'s lightweight gas turbine engine has started for the U.S. Navy. The Navy Bureau of Ships will use the engines to generate electrical power for minesweepers.

A \$24-million plant for the electrolytic reduction of ores for production of manganese is being built for the Electro Manganese Corp. of Knoxville, Tenn. This will be the company's second such plant.

Pure, ductile titanium is the reason for a joint research project arranged by Glidden Co., Cleveland, and the Bohn Aluminum & Brass Corp., Detroit.



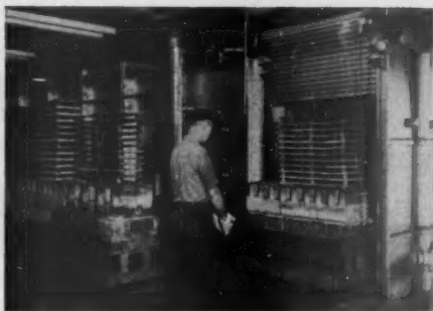
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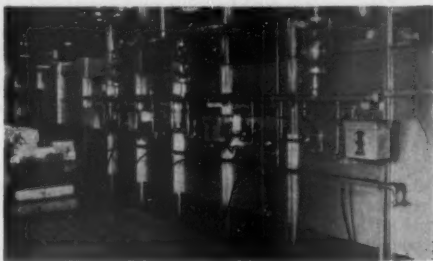
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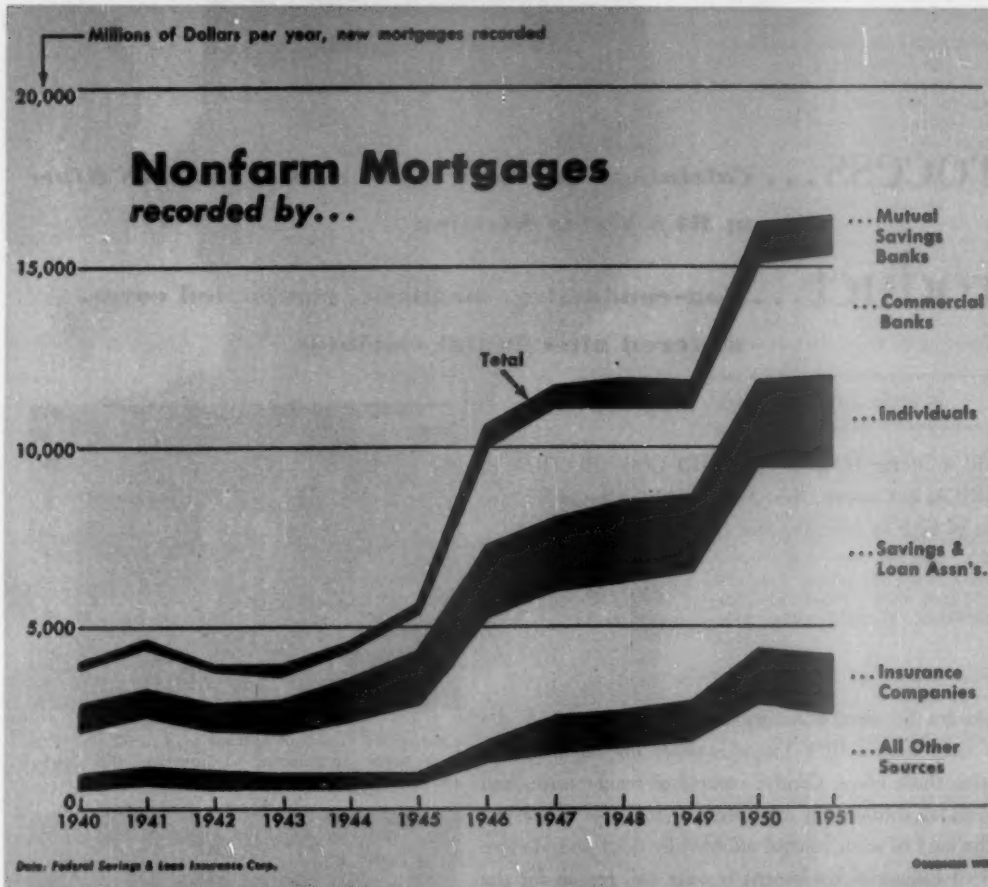
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## FINANCE



## Mortgage Money: No Scarcity Now

Put a grain of salt on those stories you've been hearing about the growing scarcity of mortgage money. Most of the complaints trace back not to a shortage of money but to the government's Regulation X, which is holding down demand and often spoiling sales for builders.

That's the principal finding of a coast-to-coast mortgage money survey completed last week by **BUSINESS WEEK** reporters. Here's the picture as they see it:

• **Easing**—It's true that the supply of mortgage money started to tighten up generally last spring (**BW**-Jun. 2 '51, p114)—and may still be a bit tight here and there—but no real shortage has developed. Nor is any shortage

expected to show up in the coming months. In fact, there have been definite signs of easing in a number of local mortgage money markets.

That's not to say that there is any rush back to free and easy lending habits of earlier postwar years. **BUSINESS WEEK** reporters found no one ladling out mortgage money to every Tom, Dick, and Harry on a silver platter.

The days are gone—for a while at least—when strong-willed borrowers could virtually dictate the terms of their loans. Since last spring, the lender has held the whip. Indications are that he plans to keep a firm grip on it.

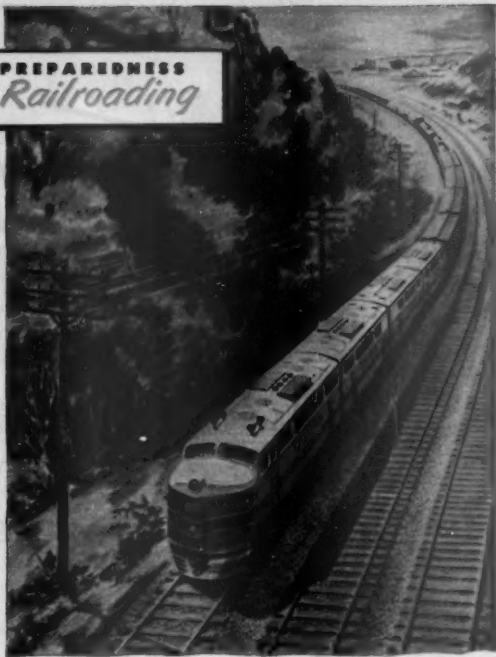
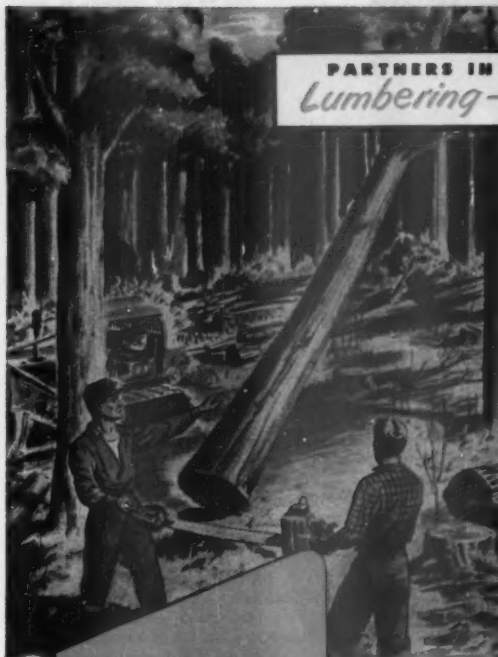
• **Normality**—This isn't surprising; nor should it be disturbing. The change

has simply been caused by a return to more normal operating conditions in the mortgage money market. Seekers of mortgages have had to compete with other types of investment for loanable funds, on a realistic basis—just as was the case in prewar days.

Mortgages no longer have the "scarcity value" that they enjoyed for so long after V-J Day. Thanks to the postwar building boom, there's an all-time record of \$54-billion outstanding on nonfarm mortgages. That compares with the \$20-billion cached away in institutional and individual portfolios at the end of 1946.

The flood of new mortgages has tended to dull the appetite of many investors. Savings banks, nationally,

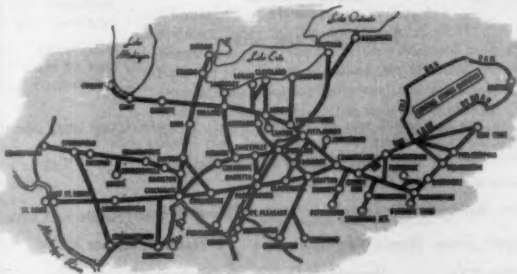
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recently had 48% of deposits in mortgages; the figure was less than 28% six years ago. Some banks have as much as 65% of their assets invested in mortgages. This quite obviously limits both their willingness and ability to take on more mortgages at the same pace as in recent years.

• **Insurance**—There are signs, too, that the life insurance trade is beginning to move cautiously in buying home mortgages. That's true even of its billion-dollar units.

Prudential Insurance Co. of America—second-largest in the nation—has just announced that for the time being it will accept no new loan applications in 11 Rocky Mountain and West Coast states. Prudential explains that a resting period is needed to allow it to take stock of its current holdings and its big backlog of still unissued commitments.

• **Unpegging**—Today's big holdings have been only one of the factors in making the mortgage market more realistic. The unpegging of the government bond market last spring was equally important. This at once narrowed the differential in yield, which had earlier made mortgages more attractive than most other investments. What was even more important, it effectively dammed up a huge reservoir of potential mortgage money.

Until then, institutions had been selling great chunks of the low-yielding government issues they had acquired during the war. They reinvested the money in higher-yielding mortgages. At the end of 1950 long-term governments were offering an average return of only 2.39%. And these holdings could be sold well above par. Thus institutions were at once encouraged to take profits and at the same time get higher yields by reinvesting in mortgages.

This situation has changed sharply since the Federal Reserve Board pulled its pegs, letting governments sell at prices dictated by demand and supply. The yield on long-term Treasuries has been hanging around 2.7% lately. That means market prices well under par. So banks now have to take a loss if they want to switch out of Treasuries into mortgages. As a result, switching has just about stopped.

• **Less Building**—If the present conditions had prevailed at the peak of the postwar building boom, there would probably have been a real shortage of mortgage money. But home building came down to 1,094,000 units last year, from the record-breaking peak of 1.4-million in 1950. This year almost everyone will be satisfied to equal the 1951 figure. Not a few expect another decline. According to many builders (BW-Mar.15'52,p.24), the housing boom passed its peak in 1950. They are planning to build as many houses as

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\*Industrial Relations Yearbook, 1951

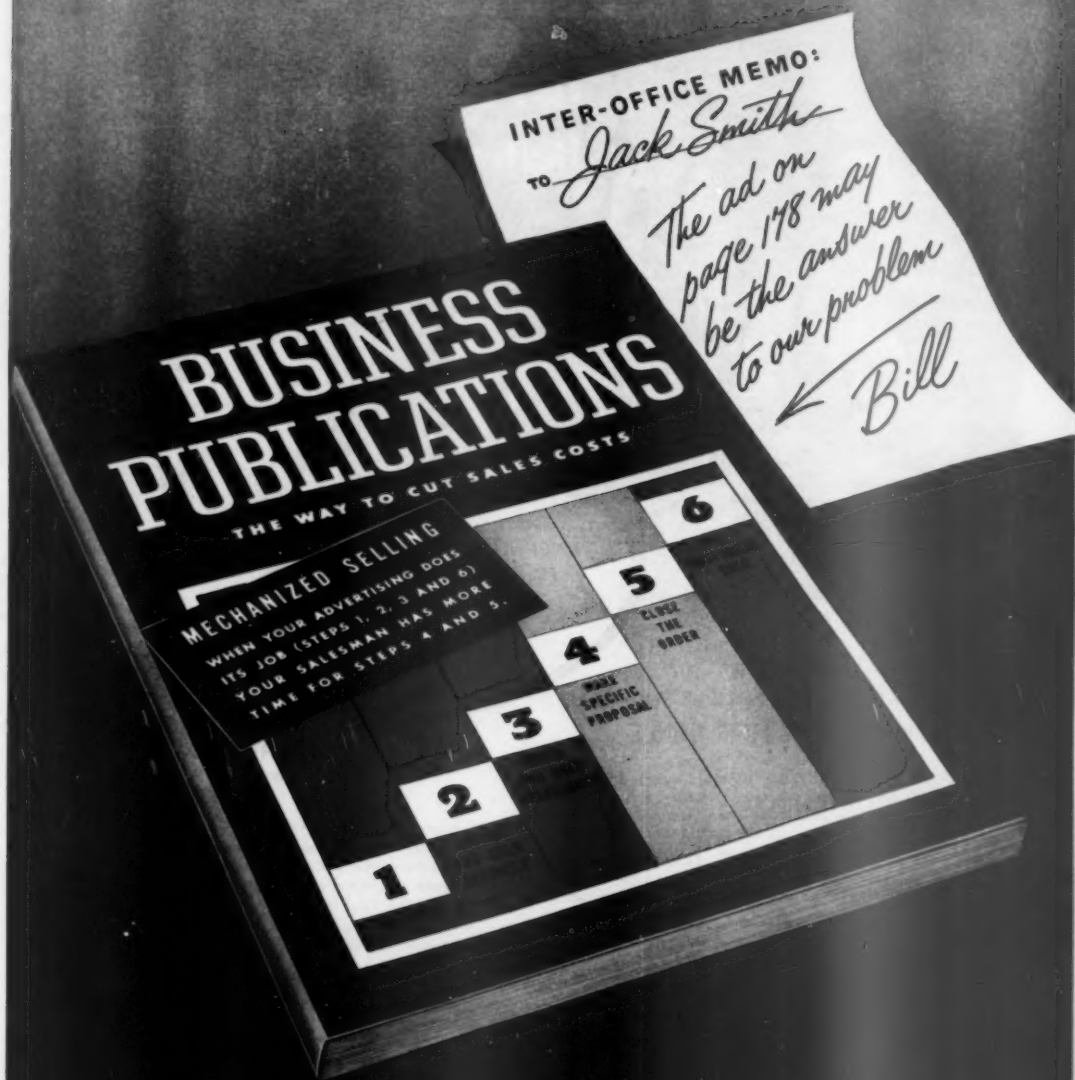
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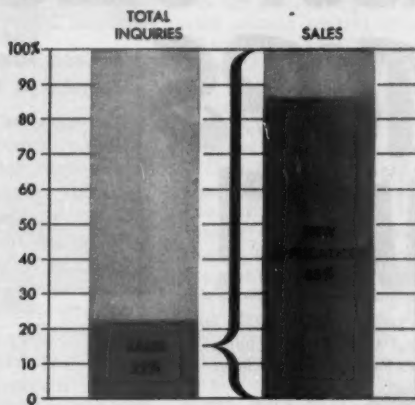
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they can in 1952, but some are all set to cut back production the minute they see signs that the market is dwindling.

What has really hurt new home buying, builders report, is Regulation X, which forces home buyers to plank down an initial payment far greater than ever before in the postwar period. Not helping either is the reluctance of mortgage buyers to take on very many more low-yielding Veterans Administration and Federal Housing Authority guaranteed loans.

Here's how the situation stands in the areas covered by BUSINESS WEEK's survey:

**Atlanta:** Home sales are off sharply, according to a number of prominent real estate brokers. This group blames the government. It claims that "mortgage money has been in hiding ever since the government refused to liberalize interest rates of FHA and VA loans." These realtors say that Regulation X has hurt, too.

A banker, however, says "there's no scarcity of mortgage money at slightly higher interest rates than existed a year ago." In other words, home buyers have no trouble financing purchases unless they insist on doing it via government-guaranteed paper. It is almost impossible, this banker admits, to get any one interested in a VA 4% loan, and almost as hard to sell 4 1/2% FHA paper. But there's no trouble financing with conventional mortgages carrying 4 1/2% to 5% rates. And mortgage life is shorter; preferred by Atlanta lenders are 15-year to 20-year terms.

**Boston:** This area has a high concentration of thrift institutions, which, for years, have been accumulating capital faster than it can be used locally. Thus there is no shortage of mortgage money. Rates have firmed lately, but the prime rate is currently 4%, the going rate 4 1/2%. In some outlying areas, the rates reach up to around 5%. (Just 70 miles away in Manchester, N. H., some borrowers are now having to pay up to 6%.)

Last fall Boston's savings banks had less than 40% of their assets in mortgages. So they've been active lately in acquiring out-of-town loans. Popular purchases have been California FHA and VA mortgages at prices ranging from 95% to 97% of par.

**Chicago:** Plenty of mortgage money seems available, but most buyers don't appear anxious to take on any more VA paper or much in the way of FHA loans. Conventional mortgages bearing 4 1/2% to 5% rates are preferred. Appraisals lately have been more careful. Savings and loan associations now appear willing to loan around 65% of present market price of property; life companies go only to 50% to 55%. On older properties, lenders are trying to hold the repayment period to 12 or 13 years in-

stead of 15. On new homes, there's no trouble in getting a 20-year loan.

**Cleveland:** There's no shortage of mortgage money, but there is a shortage of people able or willing to pay the price lenders are now demanding on all but very choice deals. Some 4½% is still available for prime risks, but 5% appears to be the going rate, and 6% on long-term, mortgage-to-the-limit deals.

Most banks are trying not to loan over 50% of current value, but building and loan associations appear willing to go to 75%. Builders report that no one is willing to take on any more VA or FHA paper. They say that this is hurting their new-home sales—none too good lately—almost as much as the prices they must charge to make a profit.

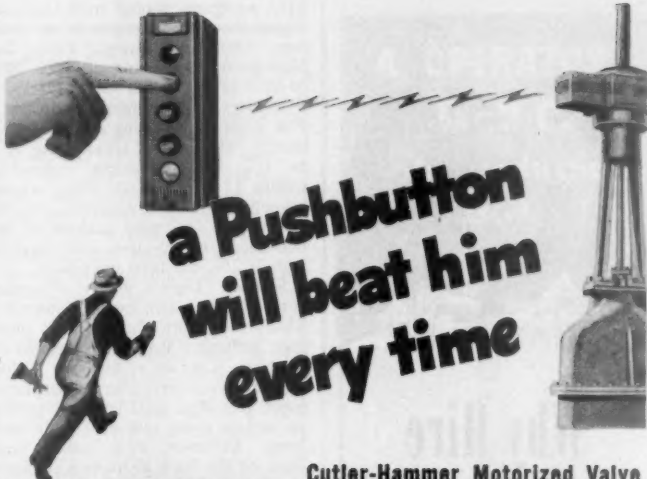
**Dallas:** Mortgage money is costing borrowers about ¼% more than a year ago. However, there are signs that rates—recently 4½% to 5% on residential and 4% to 4½% on commercial properties—may soon ease off a bit. There has been more and more mortgage money available. The hardest mortgages to sell are FHA and VA loans. Maturities of 15 to 20 years prevail on residential mortgages.

**Pittsburgh:** Lenders say there's plenty of money around, but that it is difficult to get "good mortgages." Some VA and FHA paper is being purchased, but not much, apparently. Building and loan association rates, for instance, have been averaging 5% to 5½% on 15- to 18-year mortgages; bank rates have been running as high as 5% for 10- to 20-year loans. The size of the down payment is causing much trouble.

**Los Angeles:** Easy financing of tract housing is about finished, but there are plenty of funds available for individual homes. Choice loans bring 4½%; for others, you may pay up to 5% or 7% on paper maturing, on the average, 14 to 15 years hence. One of L. A.'s large commercial banks is not seeking any loans. Traditionally conservative about real estate, it has been worried for a year and a half about the rate of local home building and lending.

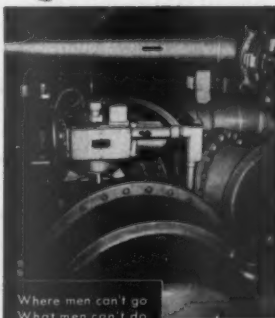
**St. Louis:** Plenty of mortgage money is available. Interest rate demanded varies from 4% (for a few choice loans) to 5½%. More and more 5% and 5½% loans are noticeable. Some VA and FHA paper is still being taken by lenders, though usually only in behalf "of customers and their sons and daughters" or to build up contacts that might prove useful later on if the mortgage business should get tough. Most common are 10-to-14-year mortgages. Institutional lenders, as a rule, have been lending up to 50% and 60% of conservative appraisal values.

**San Francisco:** On balance, the money supply is tight. No one wants any VA paper, and few are fighting for

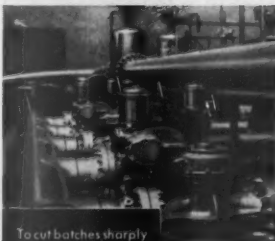


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every time**

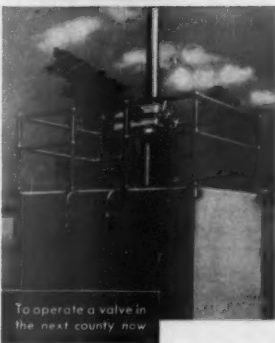
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FHA mortgages, though most banks are taking those that come over the transom. One large national lender has been giving local borrowers from 50% to 60% of the market value at 4 1/2% to 5 1/2% rates for a maximum of 15 years. Few lenders are passing out much 5% money. Mostly, they are charging 5 1/2% to 6% and demanding repayment within 12 to 15 years. They are extremely cautious on appraisals, too. As a result, an increasing amount of second mortgage business, with rates as high as 7%, has been noticeable.

Seattle: "There's plenty of money available at a fair rate of interest." That's the report of one Seattle mortgage authority. But it all depends on what you mean by a "fair rate." Most Seattle bankers favor conventional mortgages; one large local lender is getting an average going rate of 5% on such loans. Moreover, it is making such loans on the basis of its own conservative appraisal of properties. Others are shying away from poorer properties, "especially the \$10,000, hastily erected GI house," as one lender puts it. What most appear to be looking for are high-grade mortgages, and they "are difficult to get."

### FINANCE BRIEFS

**Ultimatum to Glenn McCarthy:** Equitable Life Assurance Society has told McCarthy he'll have to devote full time to helping with management of the McCarthy oil and hotel properties on which it holds mortgages, or else step out of management completely. McCarthy has been planning to start a new oil exploration company (BW-Mar.29'52,p167). McCarthy says he'll probably go ahead anyway.

**Otis up, K-F down:** The New York federal court of appeals has reversed last year's award by a lower court of \$3.1-million damages to Kaiser-Frazer over an alleged breach of an underwriting contract with Otis & Co. The court said the contract was illegal. K-F, which has not yet been able to collect the judgment (BW-Dec.8'51,p156), says it will appeal.

Now it looks prettier. Allied Kid Co. has given up the LIFO method of reporting inventory for tax purposes, due to the decline in prices of skins and hides. When prices are rising, LIFO cuts income taxes. But now it's working the other way (BW-Jan.12'52,p23).

Corporate profits of leading companies in 1951 were off 7% from 1950, according to the National City Bank's monthly letter.

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See Clues on page 194.

BUSINESS WEEK • Apr. 12, 1952



## Billion-Dollar Club Climbs

The inflation in prices and the expansion of new-money borrowing that took place after Korea have had their effects on the corporate Billion-Dollar Club, both in the assets and the sales divisions. The sales group gained six new members in 1951, the most it has ever picked up in one year. There are now 26 companies (if you include

nonreporting Ford) with annual sales over \$1-billion, compared to only eight at the end of 1946, two in 1939. The \$1-billion assets group has grown more slowly. There are now 24, compared to 14 at the end of 1946, 12 in 1939.

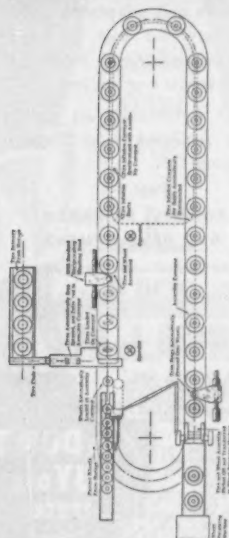
Westinghouse shows up as the fastest-growing member in both divisions.

	Assets as of		% Growth Since 1939
	Dec. 31, 1951 (In Millions of Dollars)	Dec. 31, 1939 (In Millions of Dollars)	
Bell Telephone System.....	\$9,732	\$3,218	202.4
Standard Oil Co. (N. J.).....	4,707	2,035	131.3
General Motors Corp.....	3,672	1,323	177.6
U. S. Steel Corp.....	3,141	1,769	77.6
Pennsylvania RR.....	2,451	2,018	21.5
Southern Pacific System.....	1,897	1,646	15.2
New York Central RR.....	1,866	1,631	14.4
Standard Oil Co. (Ind.).....	1,801	723	149.1
Socony-Vacuum Oil Co.....	1,792	930	92.7
E. I. du Pont de Nemours & Co.....	1,599	736	117.3
Texas Co.....	1,549	661	134.3
Bethlehem Steel Corp.....	1,542	733	110.4
Gulf Oil Co.....	1,512	523	189.1
*Ford Motor Co.....	1,469	692	112.3
General Electric Co.....	1,460	434	236.4
Atchison, Topeka & Santa Fe Ry.....	1,408	1,116	26.2
Consolidated Edison Co. (N. Y.).....	1,406	1,024	37.3
Standard Oil Co. (Cal.).....	1,366	629	117.2
Pacific Gas & Electric Co.....	1,328	657	102.1
Union Pacific RR.....	1,272	1,101	15.5
Sears, Roebuck & Co.....	1,264	324	290.1
Baltimore & Ohio RR.....	1,261	1,110	13.6
*Commonwealth Edison Co.....	1,027	717	43.2
*Westinghouse Electric Corp.....	1,004	217	362.7

	Sales or Revenues		% Growth Since 1939
	1950 (In Millions of Dollars)	1939 (In Millions of Dollars)	
General Motors Corp.....	7,466	1,377	442.2
Bell Telephone System.....	3,638	1,107	228.6
Standard Oil Co. (N. J.).....	3,786	934	305.4
U. S. Steel Corp.....	3,510	846	314.9
*Great Atlantic & Pacific Tea Co.....	3,180	990	221.2
*Sears, Roebuck & Co.....	2,657	617	330.6
Chrysler Corp.....	2,547	550	363.1
*Swift & Co.....	2,524	757	233.4
General Electric Co.....	2,319	396	485.6
*Armour & Co.....	2,215	715	209.8
Bethlehem Steel Corp.....	1,793	414	331.1
E. I. du Pont de Nemours & Co.....	1,546	299	417.1
Standard Oil Co. (Ind.).....	1,539	344	347.4
Socony-Vacuum Oil Co.....	1,529	496	208.3
Safeway Stores, Inc.....	1,455	306	375.5
Gulf Oil Co.....	1,439	277	419.5
Texas Co.....	1,417	365	288.2
Westinghouse Electric Corp.....	1,241	175	609.1
*Montgomery Ward & Co.....	1,170	475	146.4
*International Harvester Co.....	1,077	212	408.0
*Shell Oil Co.....	1,072	248	332.3
*Republic Steel Corp.....	1,060	230	360.9
*Pennsylvania RR.....	1,044	431	144.2
*National Dairy Products.....	1,038	337	208.0
*J. C. Penney Co.....	1,035	282	267.0

\* Not in the club for year ended Dec. 31, 1950. \*For Dec. 31, 1950; 1951 figures not available. Sales figures never available. \*Fiscal years ended February, 1951 and 1949. \*Fiscal years ended January, 1952 and 1948. \*Fiscal years ended October, 1951 and 1939.

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# THE MARKETS

# LAST WEEK'S 20 STOCK MARKET LEADERS

The Big Board	Bull Market High	Last Week's High	Prices Close	Net Change During Week	Week's Volume
Canadian Pacific	\$403 <sup>3</sup> / <sub>4</sub>	*\$403 <sup>3</sup> / <sub>4</sub>	\$39	+ 1 <sup>1</sup> / <sub>4</sub>	266,600
Baltimore & Ohio	241 <sup>1</sup> / <sub>2</sub>	211 <sup>1</sup> / <sub>4</sub>	195 <sup>5</sup> / <sub>8</sub>	+ 1 <sup>1</sup> / <sub>4</sub>	151,000
Sunray Oil	241 <sup>1</sup> / <sub>4</sub>	*241 <sup>1</sup> / <sub>4</sub>	231 <sup>1</sup> / <sub>2</sub>	+ 3 <sup>3</sup> / <sub>8</sub>	101,100
Pepsi Cola	123 <sup>3</sup> / <sub>4</sub>	103 <sup>3</sup> / <sub>8</sub>	97 <sup>1</sup> / <sub>8</sub>	...	89,500
Int. Tel & Tel	191 <sup>1</sup> / <sub>8</sub>	177 <sup>1</sup> / <sub>8</sub>	167 <sup>1</sup> / <sub>8</sub>	- 1 <sup>1</sup> / <sub>4</sub>	86,500
Southern Pacific	743 <sup>3</sup> / <sub>8</sub>	713 <sup>3</sup> / <sub>8</sub>	701 <sup>1</sup> / <sub>2</sub>	+ 13 <sup>3</sup> / <sub>8</sub>	81,100
U.S. Steel	473 <sup>3</sup> / <sub>4</sub>	40	39	- 13 <sup>3</sup> / <sub>8</sub>	62,400
Northern Pacific	943 <sup>3</sup> / <sub>8</sub>	933 <sup>3</sup> / <sub>4</sub>	893 <sup>3</sup> / <sub>8</sub>	- 35 <sup>3</sup> / <sub>8</sub>	62,000
Socony-Vacuum Oil	405 <sup>5</sup> / <sub>8</sub>	403 <sup>3</sup> / <sub>8</sub>	391 <sup>1</sup> / <sub>2</sub>	- 1 <sup>1</sup> / <sub>4</sub>	60,900
Gulf, Mobile & Ohio	313 <sup>3</sup> / <sub>4</sub>	*313 <sup>3</sup> / <sub>4</sub>	313 <sup>3</sup> / <sub>8</sub>	+ 25 <sup>5</sup> / <sub>8</sub>	60,700
General Motors	551 <sup>1</sup> / <sub>8</sub>	*551 <sup>1</sup> / <sub>8</sub>	543 <sup>3</sup> / <sub>8</sub>	- 5 <sup>5</sup> / <sub>8</sub>	60,300
Radio Corp.	273 <sup>3</sup> / <sub>4</sub>	273 <sup>3</sup> / <sub>4</sub>	267 <sup>1</sup> / <sub>8</sub>	- 3 <sup>3</sup> / <sub>4</sub>	54,700
Phillips Petroleum	587 <sup>1</sup> / <sub>8</sub>	*587 <sup>1</sup> / <sub>8</sub>	57	- 13 <sup>3</sup> / <sub>4</sub>	52,000
New York Central	201 <sup>1</sup> / <sub>4</sub>	201 <sup>1</sup> / <sub>8</sub>	191 <sup>1</sup> / <sub>4</sub>	- 7 <sup>1</sup> / <sub>8</sub>	46,900
Transamerica	275 <sup>5</sup> / <sub>8</sub>	255 <sup>5</sup> / <sub>8</sub>	253 <sup>3</sup> / <sub>8</sub>	+ 1	43,700

# The Curb Exchange

Devon Leduc Oil	31 <sup>1</sup> / <sub>2</sub>	*31 <sup>1</sup> / <sub>2</sub>	31 <sup>1</sup> / <sub>16</sub>	+ 3 <sup>3</sup> / <sub>4</sub>	391,600
Pancoast Oil	45 <sup>5</sup> / <sub>8</sub>	37 <sup>3</sup> / <sub>8</sub>	37 <sup>3</sup> / <sub>8</sub>	+ 5 <sup>5</sup> / <sub>8</sub>	326,800
Calvan Cons. Oil	83 <sup>3</sup> / <sub>4</sub>	*83 <sup>3</sup> / <sub>4</sub>	81 <sup>1</sup> / <sub>4</sub>	+ 15 <sup>1</sup> / <sub>16</sub>	314,200
Jupiter Oils	51 <sup>1</sup> / <sub>16</sub>	*51 <sup>1</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>16</sub>	+ 1 <sup>1</sup> / <sub>16</sub>	261,400
American Superpower	13 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	+ 3 <sup>3</sup> / <sub>16</sub>	234,500

\*New bull market high.

# Oils Busy As Steels Stand By

For a moment last week, officials of the New York Stock Exchange wondered if the glory had departed from the corner of Broad and Wall. For the first full trading day since November, 1945—and for one of the few times in history—volume of trading on the New York Curb Exchange was greater than volume on the Big Board.

You can find the reason by looking at the table (above): activity in Canadian oils, some of which are traded on the Curb as well as on Canadian exchanges.

• **Oil Rush**—U. S. oil stocks and shares of companies with oil possibilities are conspicuous in Big Board trading, too. Seven, perhaps eight, of the top 15 last week fell into this group. One of them was Transamerica common. In spite of the news that Transamerica, primarily a bank holding company, might have to divest itself of a tremendous batch of bank stocks (BW—Apr. 5 '52, p. 24), the stock went up a point for the week. Behind this gain were reports of oil pos-

sibilities in connection with one of the company's nonbank holdings.

• **Solid GM**—General Motors quietly went to a new bull market high. Company officials, according to Street rumors, have indicated GM will maintain its \$4 dividend. Compared with Canadian oils, GM's outlook is unexciting. But it may be a lot more solid.

• **Effect of Steel**—The steel situation, however, is the main event this week. Wall Street is still on the sidelines until it can gauge the probable effect.

The thinking goes like this: A rise in steel wage costs will narrow profit margins somewhere. The steel companies will take the narrower margins unless: (1) they get price boosts that will fully offset the higher costs (which seems very unlikely), and (2) are able to pass them on to their customers. Even if the industry does get its price boosts, many industries that buy steel will have trouble passing this extra cost on. As long as the general economic climate

is deflationary, the net effect of higher steel wages is bearish.

But bulls who agree with this line of reasoning also figure that the steel settlement, whatever it is, won't have any major effect on the stock market. It

may upset prices for the time being. But the general picture won't be changed very much. Other bulls think higher steel wages, even without price increases that stick, will tend to be inflationary.

## "Favorite 50" of the Investment Trusts

Have you been wondering—as so many have—what common stocks have been favored lately by the “professionals” in investment trusts? Here they are (table below). This list, compiled by Aigeltinger & Co., trust specialists, contains the trade's 50 largest holdings at the end of 1951. The shares were valued at \$1.1-billion and accounted for 25% of all assets of over 158 open-end and closed-end trusts.

Oil shares were by far the most popular as a group. The Aigeltinger list included 15 oils, among them several recent spectacular market performers. Amerada Petroleum, the largest individual trust holding, has scored a 53% price advance so far in 1952. Oils alone accounted for 37.2% of the dollar value of the “favorite 50.” Second choice was the chemical group (12.1% of the total), followed by metals and mining (8.8%).

Rank By Market Value

Dec. 31, 1950	June 30, 1951	Dec. 31, 1951	Stock	Market Value (Millions)	Trusts Owning Shares	Shares Held (Thousands)	% of Issue Held
1	1	1	Amerada Petroleum.....	\$68.8	24	467	14.80%
7	2	2	Standard Oil (N. J.).....	50.0	71	660	1.09
4	4	3	Gulf Oil.....	43.6	71	798	3.52
2	5	4	Continental Oil.....	41.0	62	728	7.49
1	3	5	International Paper.....	40.8	63	832	9.35
5	7	6	Texas Co.....	36.9	61	657	2.38
8	6	7	B. F. Goodrich.....	34.2	55	553	13.42
6	8	8	Kennecott Copper.....	33.1	71	386	3.56
10	11	9	General Electric.....	28.2	72	473	1.64
9	13	10	Standard Oil (Cal.).....	27.0	47	531	1.85
19	10	11	Montanto Chemical.....	26.3	49	249	5.12
15	12	12	Union Carbide & Carbon.....	25.8	64	405	1.41
23	17	13	Dow Chemical.....	25.0	50	215	3.29
17	14	14	Westinghouse Electric.....	24.2	68	606	3.92
11	9	15	E. I. du Pont de Nemours.....	23.8	53	259	0.57
13	19	16	Phillips Petroleum.....	23.7	62	464	3.32
47	21	17	American Cyanamid.....	23.3	51	196	5.00
12	18	18	Standard Oil (Ind.).....	22.6	49	302	1.98
14	15	19	Montgomery Ward.....	22.5	55	333	5.13
22	26	20	United Gas Corp.....	22.1	58	893	7.62
16	16	21	Sears, Roebuck.....	21.8	40	390	1.65
26	24	22	Bethlehem Steel.....	21.8	86	423	4.41
31	30	23	Humble Oil & Refining.....	21.1	25	272	1.52
21	22	24	United States Steel.....	19.6	43	490	1.88
30	33	25	Skelly Oil.....	18.9	31	205	7.85
38	28	26	American Gas & Electric.....	18.8	50	312	5.47
—	—	27	Aluminum, Ltd.....	18.6	35	175	4.70
35	36	28	Phelps Dodge Corp.....	18.6	39	239	4.71
28	27	29	Middle South Utilities.....	18.2	49	809	13.37
43	35	30	Johns-Manville.....	17.9	45	264	8.34
20	32	31	General Motors.....	17.9	56	344	0.39
18	20	32	Celanese Corp.....	17.8	36	342	5.85
25	31	33	Southern Pacific.....	17.0	40	280	6.55
37	38	34	Socony Vacuum Oil.....	16.8	51	479	1.51
45	44	35	Central & South West.....	16.8	52	974	12.20
42	42	36	Niagara Mohawk Power.....	16.6	46	619	6.59
29	43	37	International Nickel.....	16.4	34	388	2.66
32	25	38	Cities Service Co.....	16.3	39	161	4.13
24	29	39	American Viscose Corp.....	15.8	38	240	5.86
33	23	40	Intl. Business Machines.....	15.4	27	70	2.42
—	—	41	Panhandle Eastern Pipe Line..	15.3	25	258	7.95
27	34	42	Atchison, Topeka & Santa Fe..	15.1	42	202	4.17
39	47	43	Pure Oil.....	15.0	50	240	6.03
—	49	44	American Tel. & Tel.....	15.0	41	96	0.31
46	40	45	Chas. Pfizer & Co.....	15.0	28	358	7.32
—	—	46	Shell Oil.....	15.0	29	218	1.62
41	37	47	Chrysler Corp.....	14.6	42	208	2.39
40	45	48	Youngstown Sheet & Tube.....	14.3	46	284	8.46
36	38	49	Ohio Oil.....	14.2	44	259	3.95
—	—	50	National Lead.....	13.9	26	457	13.51



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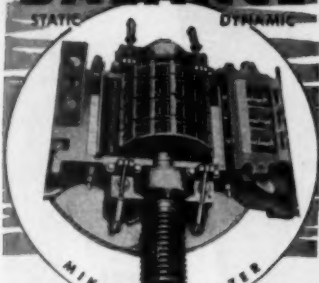
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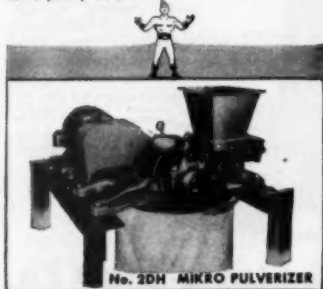
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# DEFENSE BUSINESS

## CHECKLIST:

## Defense Regulations

### Materials Orders

**Petroleum and gas:** Permits small oil and gas operators, who were given priorities assistance in purchasing oil country tubular goods for the first quarter but were unable to place orders to file for new allotments. M-46, Dir. 2 (Mar. 31).

**Light-gauge steel plates:** Imposes limitations on the placing and accepting of orders for production of light-gauge steel plates. M-1, Dir. 5 (Apr. 3).

**Inventories:** Raises inventory limitations to 60 days on pig iron, gray iron castings, malleable iron castings, and reels and spools. Removes inventory controls from 25 items. Reg. 1 as amended (Apr. 2).

### Pricing Orders

**Government-supplied terminal services:** Exempts charges for services supplied directly by governmental units in the operation of terminal, dock, or warehousing facilities. GOR 15, Amdt. 9 (eff. Mar. 26).

**Fiber insulating board:** Authorizes manufacturers of fiber insulating board to apply an industrywide increase of 2.34% to their ceiling prices. CPR 22, SR 23 (eff. Apr. 5).

**Averaging retail invoices:** Sets up two alternative pricing methods to use in setting ceilings for new shipments of goods that are identical with goods in inventory, but that are received at higher or lower net invoice cost. CPR 7, Amdt. 18 (eff. Apr. 5).

**Plasticizers:** Sets up uniform ceilings for manufacturer sales of certain dioctyl phthalate-type plasticizers. CPR 22, SR 24 (eff. Apr. 1).

**Reporting requirements:** Exempts manufacturers in certain fields (chemicals, certain rubber products, textile yarns, threads, twines, cordage, nets, lace fabrics, heating, plumbing, and refrigeration equipment) from using Form No. 128 in reporting newly established ceiling prices for commodities not sold between July 1, 1949, and June 24, 1950. CPR 22, Amdt. 43 (eff. Apr. 5).

**Mail order catalog pricing:** Permits certain mail order resellers of machinery and related products and retail mail order sellers of mechanical farm equipment to apply to OPS for a pricing method to reflect their historical cata-

log pricing practice: CPR 100, SR 1; GCPR 67, SR 1 (eff. Apr. 7).

**Contract water carriers:** Authorizes individual contract water carriers to apply for adjustment of ceilings. GCPR, SR 91 (eff. Apr. 8).

**Converted paperboard products:** Revises the method to be used by manufacturers of certain converted paperboard products when they compute ceilings by formula. CPR 84, Amdt. 2 (eff. Apr. 1).

**Zinc scrap and battery lead scrap:** Permits computation of weight of zinc and battery lead scrap at point of shipment, rather than at buyer's receiving point, on sales made by the U.S. government. CPR 43, Amdt. 2; CPR 53, Amdt. 2 (eff. Apr. 4).

**Baler and binder twine:** Provides wholesalers of baler and binder twine with an alternative method for figuring ceilings on all sales, except to dealers, in less than carload lots. CCPR, SR 89, Amdt. 1 (eff. Apr. 9).

**Parity pass-through:** Prohibits processors of agricultural commodities who use ceiling prices adjusted under provisions of the Capehart Amendment from taking parity pass-throughs for any increase in the cost of an agricultural commodity since July 25, 1951. GOR 20, Amdt. 1; GOR 21, Amdt. 2; CPR 22, SR 17, Amdt. 2; SR 18, Amdt. 1; and CPR 22, Amdt. 44 (eff. Apr. 9).

**Soft shell clams:** Exempts canned Maine soft shell clams from price control. GOR 7, Amdt. 14 (eff. Apr. 12).

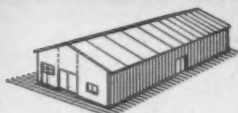
**Christmas tree lights:** Permits manufacturers of Christmas tree light sets to use ceiling prices based on price list issued by them before Jan. 25, 1951. GCPR, SR 96; CPR 22, Amdt. 45; CPR 22, SR 12, Amdt. 9 (eff. Apr. 12).

**The Pictures**—Cover by Bob Iser. Rus Arnold—128, 134; Associated Photographers—22, 23, 24, 25; Bell Aircraft Corp.—148 (top); The Bettmann Archive—86 (rt.); Black Star—92, 93, 94; Fran Byrne—120 (top, bot. lt.), 122; Cal-Pictures—70 (top lt.), 76; Int. News—138, 140, 183 (ctr.); Ed Nano—106; Nott & Merrill—50 (rt.); Photo-Art Commercial Studios—81; The Robert Simpson Co., Ltd.—50 (lt.); Will Rapport—86 (lt.); Standard Oil Co. (N. J.)—56; Triangle—189 (top); United Press—182 (ctr.); Wide World—48, 111; Dick Wolters—30, 68 (top), 78, 82, 83, 146, 182 (lt. rt.), 183 (rt.), 189 (bot.).



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# LABOR

## HOW WAGES HAVE RISEN SINCE THE WAR

	Increase in Average Hourly Earnings, 1946-1951						Increase Since 1945	Average Rate Jan., 1952
	1946	1947	1948	1949	1950	1951		
Steel	10¢	15¢	14¢	7¢	5¢	19¢	70¢	\$1.90
Auto	8¢	14¢	14¢	9¢	8¢	14¢	57¢	1.99
Rubber	13¢	16¢	7¢	5¢	7¢	12¢	60¢	1.82
Coal	16¢	24¢	26¢	4¢	7¢	20¢	97¢	2.24
Electrical	8¢	14¢	12¢	5¢	4¢	14¢	57¢	1.67
Oil	14¢	13¢	22¢	9¢	6¢	15¢	79¢	2.11
Textiles	14¢	15¢	12¢	3¢	5¢	9¢	58¢	1.35
Chemicals	9¢	15¢	12¢	8¢	8¢	12¢	64¢	1.66
Telephones	16¢	7¢	5¢	10¢	5¢	9¢	52¢	1.54
Nonferrous	10¢	11¢	13¢	7¢	6¢	14¢	61¢	1.81
All Mfg.	6¢	15¢	11¢	5¢	6¢	13¢	56¢	1.64

Data: U. S. Bureau of Labor Statistics.

And This Week . . .

## Seizure Forecasts New Pay Records

Among all the consequences that will flow from government seizure of the steel industry (page 22), one was immediately clear:

This year—1952—will bring the biggest income raises labor has ever had.

The government has invoked the sternest measures at its command to keep steel production going. But, practically speaking, what it has done is to provide for the enforced acceptance of a wage recommendation issued by the Wage Stabilization Board.

• **Now an Order**—WSB's proposals for new contract terms in steel (BW—Apr. 5 '52, p120) were converted by Truman's seizure order from a "recommendation" into an "order." Whatever brake collective bargaining might put on wage increases is removed. The nation's wage pattern is being set by government fiat. It is triggered for a record rise.

• **New Peak**—Up to now, the 15¢ increase in average hourly earnings that all manufacturing industry recorded in 1947 was the biggest single jump since government figures have been kept. Indications are that 1947 is going to be topped.

• **Wide Fringe**—In appraising the outlook for sharply rising labor costs, bear in mind that the hourly wage rate is only one factor determining average hourly earnings. Over and above the

contract rate of pay in an industry like steel, overtime premiums, shift bonuses, vacation payments, sick-leave pay, and other fringe benefits are added. And in most cases, these fringes are a percent of the straight-time hourly rate.

Thus, while the hourly rate is by far the most important component of average earnings, it doesn't tell the whole story of labor costs or worker income.

For example, there were five rounds of collective bargaining between the CIO and the major steel companies from the end of the war through 1951. The contract wage rate rose 59½%. Average earnings, however, rose 70%. And added to this as a labor cost on employers were pension systems provided under the 1949 contract revisions.

• **Distortion**—It is a new contract wage level in steel that will, of course, shoot factory earnings up this year. Although if steel were not leading the parade, it would be coal, or rubber, or one of the other basic industries filling the pace-making role.

The impact can already be seen.

This week CIO's Communications Workers of America ordered nationwide picketing against the Bell Telephone System. Some 77,000 telephone workers already were out in a wage dispute.

AFL's Commercial Telegraphers Union was striking against Western

Union, for a 16¢ raise and a cut in its work week from 48 to 44 hours.

Perhaps these increases weren't set on the basis of the steel award. But WSB's recommendations stiffened both the CIO and AFL resistance to any retreat from demand figures.

• **Bargaining Strength**—The international situation, creating the need for sustained, high-level U.S. armament production gives labor vast bargaining strength in our basic industries. Leaving considerations of equity, ability to pay, full employment, and a rising cost of living aside, union power to make economic gains now rests squarely on the urgency government puts on defense production. Any threat to throttle down that output must be bought off.

And this is the only useful clue for answering the question all business is asking today: How long will we go on making annual wage increases? Market factors, economic realities, practical business considerations will have only a muted effect while national defense is government's paramount concern.

• **The Hard Fact**—Meanwhile, such efforts as wage stabilization, conciliation of labor disputes, and inflation control will be bent and distorted from their announced purposes. Their prime utility is to contribute to defense production; only secondarily do they serve



## "READY FOR TAKE-OFF, SIR!"

"TAKE it easy, Skip! You've still got plenty of time to decide what you're going to be when you grow up!"

Some decisions—like Skip's—can be put off indefinitely—but in today's fast-moving business world, decisive action is important to success and progress.

For instance, deciding to switch your workmen's compensation insurance to a sound, nationally-known organization such as Hardware Mutuals, can bring immediate benefits as well as long-term advantages.

As your competent Hardware Mutuals representative will point out, you'll enjoy new peace of mind in knowing that Hardware Mutuals rank among the leaders in promptness of paying workmen's compensation

claims. You'll find that this fast, sympathetic handling of claims helps build good will between you and your employees. And you'll also appreciate our *policy back of the policy*® that assures you friendly, nationwide, day-and-night service . . . plus the help of our Loss Prevention Department in finding and eliminating the causes of accidents.

Dividend savings which have been returned to Hardware Mutuals policyholders since organization now add up to more than \$100,000,000.

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their own programmatic ends. It was this hard fact that Charles E. Wilson refused to accept, choosing instead to resign his contradictory job of both production pusher and inflation fighter.

It was this hard fact that complicated steel wage bargaining for so long, but made impossible in the end a protracted test of strength that would keep the industry shut down. For a serious

loss of steel had to be avoided at all cost. When no deal was possible at the deadline, Washington moved fast to seize the mills.

As long as the threat of war remains so ominous, the free play of economic forces on which true collective bargaining depends will be suspended. There is no sign that the wage spiral will flatten out.

## THE LABOR ANGLE

**H**OW RIGIDLY will new wage levels established in basic steel plants be imposed on other employers? Much of the widespread interest in the controversy over pay rates in steel derives from the belief that Murray's union and the big steel companies set a pattern that thousands of other employers must accept.

This may not be so true as is commonly supposed.

A study conducted under a grant from the Rockefeller Foundation and available through the Industrial Relations Center, University of Chicago, carefully analyzes pattern bargaining by the United Steelworkers union. It concludes that the union is showing an increasing willingness to deviate from the "key bargain."

The study's practical value is to encourage companies whose circumstances may be different from U.S. and Bethlehem Steel—where the "key bargain" is traditionally made—to press for special consideration in their own contracts.

**T**HESE CONCLUSIONS are based on experience of companies having contractual relations with the steel union in the four postwar collective bargaining rounds. The data show that, in 1946, contracts covering 94% of the union's membership contained a wage increase identical with the "key bargain." This figure decreased to 82% in 1947, to 70% in 1948.

In 1949 the "key bargain" provided pensions instead of wage increases. Almost all the integrated steel companies adopted identical pension provisions. But the semi-integrated units followed with only 85% uniformity, and only 55% of the nonintegrated units adopted similar provisions.

A severance pay clause, important in the "key bargain," was omitted in 40% of the semi-inte-

grated and 70% of the nonintegrated units.

**T**HE STUDY makes the point that each year the union accepts more and more deviations from the pattern. Why?

To answer that question, George Seltzer, who conducted the study, was given access to union correspondence between Pittsburgh headquarters and field staff. He quotes from some communications to explain why union field men signed contracts for less than the pattern terms.

One states, "We were able to obtain only 10¢ across the board on the company's plea that they are losing money during the present period of their expansion. . . . We have investigated the company's financial condition and find its statements to be true."

Another writes, "This is an obsolete plant, and in my judgment the wages are the best that could be done at the present time. The members of the local insist upon us accepting this supplemental agreement rather than to strike this plant, as we feel certain that if we were to strike this plant it would probably never open again."

Another, "This company . . . has just gone through a complete reorganization, and the facts show that they are unable to do anything decent on wages at this time, and we are therefore making provision to open wages on a 60-day written notice in the future."

**I**T SEEMS CLEAR that, much as the union would like to impose the "key bargain" on all the employers with which it deals, it has been forced by economic realities to take account of individual differences.

The company that has a real case to present for special consideration in collective bargaining should not feel hopeless.

# HOW A PLANT AWAITING NEW MACHINERY USES SUNTAC TO MAINTAIN EFFICIENCY



**NO MORE MANUFACTURING DELAYS.** The manufacturer of these bearings uses heavy-duty presses to blank out parts. The problem of press bearing failures due to inadequate oils has been eliminated by changing to Suntac.



**CLEAN FLOOR, CLEAN MACHINE.** Adhesiveness prevents Suntac Oil from squeezing out of the bearings. Before Suntac was used, floors had to be cleaned constantly to keep them from becoming slippery and dangerous.

A large ball-bearing manufacturer is using old heavy-duty presses for which replacements have long been on order. In the past, these presses frequently had to be shut down because of overheated bearings. The average life of bearings was only eight months, because the oil in use would not *stay in*, and each failure took the press out of production for a month or more. Many different oils were tried in an effort to remedy the situation. But none proved adequate for the job, and it was becoming increasingly difficult to maintain production schedules.

Finally the company called in a Sun representative for consultation and changed to a Suntac Oil at his suggestion. The adhesiveness of Suntac has prevented its squeezing out and has kept the bearings running cool. The presses have operated without a bearing failure ever since the adoption of this "Job Proved" lubricant.

Having trouble keeping old equipment *on the job* while waiting for new? If so, send in this coupon.

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We are having bearing failures possibly caused by faulty lubrication.

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- ☐ Send me your booklet "Suntac Oil Case Histories."
- ☐ Send me your technical bulletin "Lubrication of Industrial Machinery."

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field. They can save you time... money... find the answers to problems that only such specialists can solve.

"For instance, they will help you explore the general subject of retirement programs and aid you in developing an actual plan for your company. Then, as Trustee, Chase's broad trust and investment experience will

insure wise administration of the funds for any plan you may adopt. And you can always be sure of friendly, efficient service from all of the people at Chase.

"All in all, Chase was the perfect answer for me, and I'm sure that it would be for you. Why don't you talk to the people at Chase?"

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"Chase's specialists gave us the help we needed. They not only proposed possible solutions for our problem, but they also analyzed our payroll and gave us careful estimates of the cost of a plan for our particular concern. The result was a plan tailored to our needs and our pocketbook.

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LABOR CARTOON by Bernard Scaman plugs the union's theme: Size up the candidates.

## To Win Labor's Support . . .

. . . most union heads say Republicans should name Warren and blast government corruption; Democrats should nominate Stevenson and take credit for prosperity.

If top labor leaders could name party Presidential nominees:

Gov. Adlai Stevenson of Illinois would head the Democratic ticket.

Gov. Earl Warren of California would be the Republican candidate.

The two men aren't necessarily the candidates union leaders would prefer above all others. They are the two, from among all likely candidates, who would "draw the strongest support from labor voters" in the 1952 election.

• **IAM Poll**—The International Assn. of Machinists (AFL) polled 150 union presidents during the last two weeks of March—including in the group most AFL, CIO, railroad brotherhood, and major independent union heads. It asked them to rate potential Presidential candidates solely on the basis of their ability to attract labor votes.

The machinists guaranteed that the views expressed by individual union leaders would not be disclosed. A majority cooperated by returning "ballots" to IAM.

• **Democratic Results**—Results announced this week showed:

Gov. Stevenson is considered the strongest Democratic candidate for labor support by 53% of the union presidents polled.

Sen. Estes Kefauver of Tennessee is seen as a vote-getter by 37%.

Sen. Robert S. Kerr of Oklahoma is picked as the strongest by 4%.

Speaker Sam Rayburn of Texas and a few "write in" candidates, including former Sen. Claude Pepper of Florida, share votes of 3% of those polled.

Another 3% are undecided.

One aspirant on the Democratic candidate list, Sen. Richard Russell of Georgia, failed to get a single vote.

Four months ago, in a similar poll, the same group of union leaders voted this way: Sen. Paul Douglas of Illinois, 47%; Sen. Kefauver, 19%; Gen. Dwight Eisenhower (as a Democratic candidate), 16%; Chief Justice Fred Vinson, 12%; Gov. Stevenson, 4%; and Justice William O. Douglas, 2%.

Sen. Douglas has announced since then that he is not a candidate.

• **Republican Results**—Results in the Republican balloting show:

Gov. Warren is considered the strongest Republican bidder for labor's votes by 77% of the union presidents.

Gen. Eisenhower is considered the strongest by 15%.

Other candidates were named by 4% of the union leaders. Among them, Sen. Robert A. Taft, Gen. Douglas

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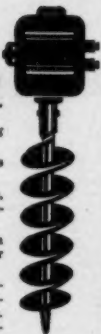
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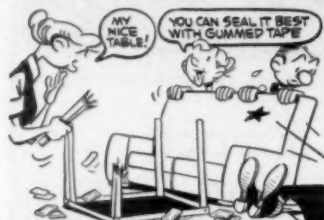
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MacArthur, and Harold Stassen got single votes.

Another 4% are still undecided.

Four months ago 74% of the same labor people supported Gov. Warren; 14% were for Gen. Eisenhower as Republican candidate; and scattered votes went to Gov. Thomas E. Dewey of New York, Gen. MacArthur, Sen. James Duff of Pennsylvania, Sen. Henry Cabot Lodge of Massachusetts, and Sen. Wayne Morse of Oregon. Neither

Sen. Taft nor Stassen received a vote at that time.

• **What Are the Issues?**—IAM's poll-intended, it says, to let leaders of both parties know labor's political sentiments before party conventions begin—also covered issues of particular importance to labor.

IAM advises:

• **The Democratic Party** to make the most of the nation's full employment and prosperity as a campaign is-



## New Leadership for CIO:

Philip Murray has often let it be known that he is determined to resign as president of the CIO. But insiders have never taken him very seriously. His mind has always been changed at the last minute by the partly real, partly synthetic urgings of his colleagues.

Now, however, some tough-minded CIO leaders believe that Murray really will step down, after the steel dispute is settled—maybe at the next CIO convention.

When, and if, this happens, there are plenty of candidates itching to step into Murray's shoes. But there may be some strings attached to the job that will take some hopefuls out of the running.

There is no doubt, for instance, that Murray would like to see his successor devote full time to the post. If Murray makes this a qualification for his support—without which no one could be elected—Walter Reuther, for one, might bow out. Reuther, like a number of other candidates, would not want to cut himself off from his real base of power—the union he heads.

Murray is much too smart a politician to nominate a successor before all has been prepared for the proper acceptance. But it is generally agreed that he will throw his support to one of these six men.

**CURRAN**, Joseph E., 46. Head of the National Maritime Union since it split from AFL's Seamen's International Union in 1937. Born in New York City. Went to sea at 16 after short employment at factory work. Has been called toughest leader of toughest union in CIO. Until end of 1946, worked closely with pro-Communist Harry Bridges of West Coast longshoremen. Broke with Communist supporters in 1946, ruthlessly ousted left-wingers. Has maintained firm control over union since then. Close to

Murray, who has named Curran to top convention jobs in 1950 and 1951. Big handicap is past record and iron-fisted methods in own union.

**HAYWOOD**, Allan S., 63-year-old English-born coal miner. Union career led through United Mine Workers under John L. Lewis to assignment on CIO staff when it was founded. Chose to stay with Murray when Murray and Lewis broke. Presently CIO executive vice-president, ranking second to Murray, and CIO director of organ-

sue in making its bid for labor voters.

• The Republican Party to campaign against corruption in government and present high taxes.

Here are the "best issues" for the Democrats, as listed by IAM, with the percentage of union leaders that suggested them:

Full employment and prosperity, 76%.

Republican "scuttling" of price and rent controls, 75%.

"Big Business" leadership of GOP, 58%.

Firm stand against Communist aggression, 55%.

Taft-Hartley repeal, 49%.

The "best issues" suggested for Republicans again as listed by IAM:

Corruption in government, 85%.

High taxes, 78%.

High prices, 68%.

Communists in government, 45%.

Casualties in Korea, 44%.

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## The Six Big Candidates

ization. Support rests on wide personal friendships. Political position centrist, in CIO terms. Somewhat puckish personality unusual in union circles. Principal qualification for job: complete and unswerving loyalty to Murray.

**REUTHER**, Walter P., 44, born in West Virginia. Worked in Detroit's auto industry as tool and die maker. Active in organizing the industry for United Auto Workers. Was in bloody battles at Ford. Headed GM department. In 1946 became president, defeating incumbent bureaucracy and pro-Communist combine. Has conducted a consolidation and mop-up operation since then, aimed at eliminating dissidents. Currently cleaning out leftist control of giant Ford Local 600. Sober, calculating, and firmly entrenched. Considered by many as No. 2 power in CIO.

**BUCKMASTER**, Leland Stanford, 58, Hoosier school teacher. Served two years in Army Air Force during World War I. Went to Akron in 1919, worked for Firestone. Joined AFL's Federal (Rubber) Labor Union in 1933, then helped organize CIO United Rubber Workers Local 7. In 1945 became president of international. Conducted a running battle with opposition forces in union. In 1949, ousted by executive board but—in a personal triumph—reinstated with back pay by union convention. Now appears firm in driver's

seat. Success attributed to adroit footwork and appeal to rank-and-file. This may influence a CIO bloc that thinks the organization should now be headed by somebody like AFL's William Green.

**BEIRNE**, Joseph A., 41, New Jersey native, heads CIO's Communications Workers of America. Started out working at a bench for Bell System's Western Electric Co. Organized WE plant as nucleus for independent National Assn. of Telephone Equipment Workers. In 1939 NATEW and other independent phone unions joined to form National Federation of Telephone Workers. In 1947 Beirne brought NFTW into the CIO as CWA with himself as head.

**KNIGHT**, Orie Albert (Jack), 49-year-old head of Oil Workers International Union. Born in Iowa. Worked at Shell Oil Co. refinery in East Chicago, Ind., as a stillman, the top skilled job. Began union work in AFL in 1933. Helped organize Hammond (Ind.) local of OWIU's predecessor. Later, CIO organizer. Elected president of his international in 1940. Considered a shrewd strategist and an able administrator both in the union and in the government, where he has served off and on since the war. Some think he is just the kind of smooth, soft-spoken leader that CIO may be looking for.

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## You Can Require Oaths . . .

. . . to make sure you aren't dealing with Communists in union negotiations. This ruling by an NLRB trial examiner, if upheld, may be biggest blow yet for Red unionists.

You can demand non-Communist oaths from the union representatives with whom you deal, if the National Labor Relations Board upholds a trial examiner's ruling. The screening is in addition to non-Communist oaths required under the Taft-Hartley act from unions that intend to use NLRB machinery.

This latest safeguard against left-wing influence in unions is incorporated in an NLRB examiner's ruling that's now headed for Washington review. If it is upheld, as appears likely, the decision may prove to be the biggest blow suffered by Red unionists since CIO booted out 12 unions for being Communist-dominated.

• **Hits Lower Levels**—T-H requires non-Communist affidavits from international and local union officers. But the men who do the real bargaining with management frequently aren't the elected officers. They are committeemen operating safely out of reach of T-H.

A month ago NLRB ruled in the important Sunbeam Corp. case that an international union can't "front" for a local whose leaders haven't complied with T-H. Also, the board broadened its definition of officers who must file affidavits so it includes local trustees and sergeants-at-arms.

The latest ruling goes even further. It says that an employer, too, can ask for non-Communist oaths. He isn't guilty of a refusal to bargain in good faith if he refuses a contract that doesn't make the oaths compulsory.

There are broad implications in this ruling: Recent Congressional investigations have named Communists and party-liners who are active in union affairs in many plants (BW—Apr. 5 '52, p122); the oath rule, if it sticks, may be used as a way of refusing to deal with them any longer.

• **Case at Issue**—Square D Co., in Los Angeles, had a contract with the United Electrical Workers. After UE got its walking papers from CIO, which charged UE was Communist-dominated, Square D scrutinized the people it dealt with. It found what it thought were a number of party members or party-liners among the union leaders and negotiators.

When the Square D contract with UE came up for renegotiation late in 1949, the company demanded that the union accept a clause providing that (1) the company "may require a non-Communist affidavit from any indi-

vidual . . . claiming to represent the union in any capacity" and (2) the company may "refuse to confer, meet with, or bargain with any person or persons who decline to furnish such . . . affidavits."

UE protested to NLRB that such a demand is not in the realm of collective bargaining. The union charged Square D wasn't bargaining in good faith, as required under T-H.

• **The Ruling**—The trial examiner, David F. Doyle, tossed out the union protest. He decided that the company was only trying to protect its own best interests in demanding non-Communist oaths. UE had just been expelled from CIO on Communist-domination charges. The union's chief negotiator was apparently following the party line outside the plant—by addressing a leftist meeting—and in the arguments advanced in contract negotiations.

Besides, said Doyle, the company was not asking for oaths it was not willing to sign itself, on union demand. The proposed contract clause also provided that the union could require "a non-Communist affidavit from any member of the [Square D] management who represents the company in dealings with the union."

### LABOR BRIEFS

A scientists' Union has won a long fight for elections covering 4,200 Western Electric engineers and scientists. The National Labor Relations Board took three years of hearings, 10,000 pages of testimony, to decide to split technicians from production workers.

A white-collar strike at B. F. Goodrich Co., in Akron, ended this week. The company agreed to supply wage data demanded by CIO's rubber workers, and the union dropped NLRB charges and agreed to a consent election.

No wage demands are planned by the CIO men's clothing workers at this time, due to economic conditions in the industry.

You may have to pay for BLS services if appropriation cuts proposed in the House go through. The appropriations committee, which recommended nearly \$1-million less than BLS asked, said the agency should consider a fees plan.



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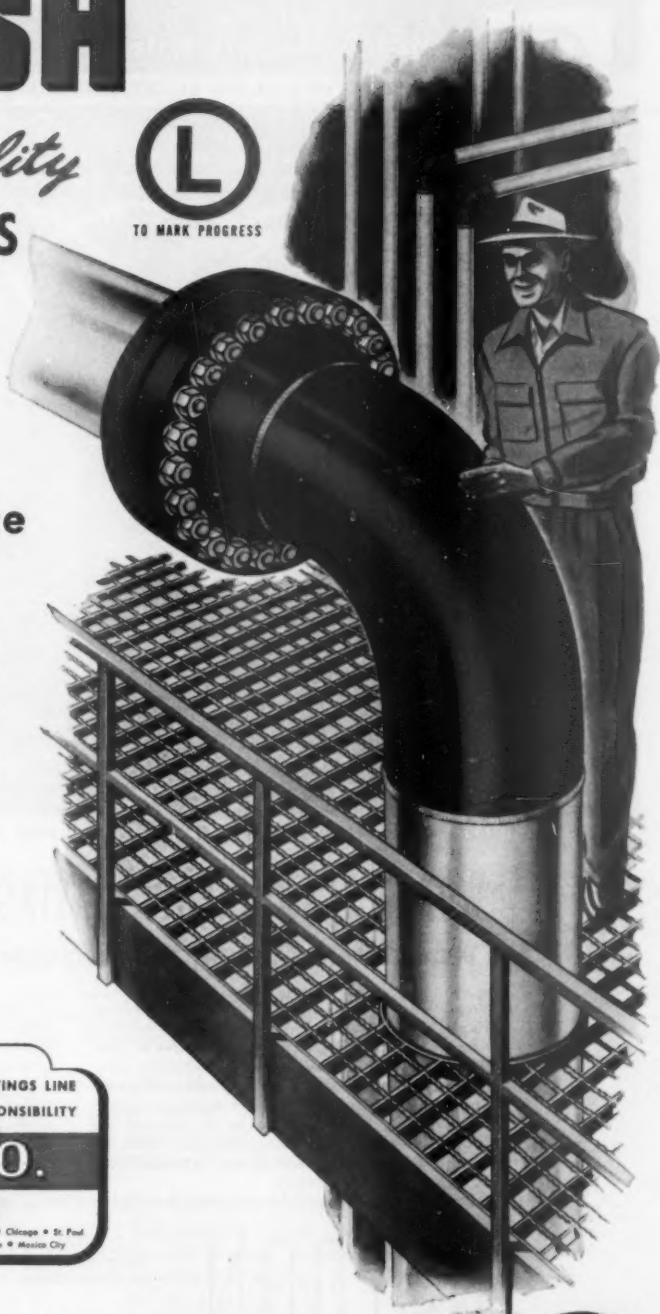
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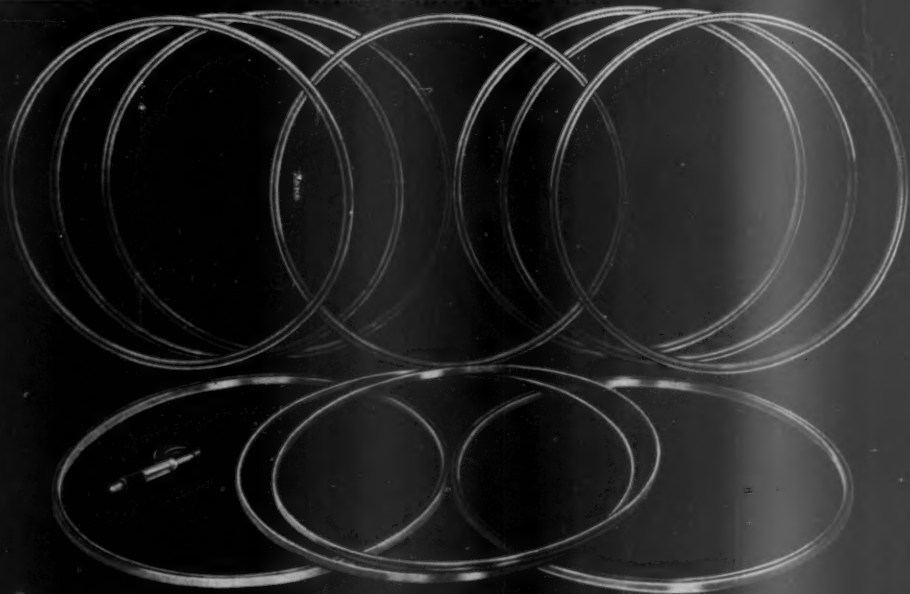




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# INTERNATIONAL OUTLOOK

BUSINESS WEEK  
APRIL 12, 1952



Stalin's peace offensive, 1952 model, is rolling right along.

- Four Power talks: Stalin lets it be known he considers East-West troubles can be solved by negotiation.
- Far East: Peiping has raised hopes of an early compromise in the Korean negotiation. Asian circles hint that maybe an Indo-Chinese settlement is possible.
- Germany: Rumors that the Kremlin will come up late this month with a tempting proposal for free elections keep West Germans on tenterhooks.
- Trade: Westerners with any kind of business worries are offered billions of dollars of trade with the Communist world.

Western statesmen, for the most part, believe these advances are just part of the familiar Soviet confidence game—to split the Allies, stall rearmament and West German cooperation with the West.

Nonetheless, you can't completely rule out the chance of a major Soviet policy shift. Maybe growing Western strength has induced the Politburo to take some heat out of the cold war.

The possibility of a temporary truce haunts U. S. policy planners.

We just can't take a negative attitude toward Soviet overtures and say "No" all the time. We'll lose free world leadership if we do.

Yet we believe firmly that only growing military strength will keep a checkrein on Soviet expansionist policies.

A situation could develop where we're negotiating some East-West settlements on the one hand, and trying to keep rearmament from stalling on the other. There would be strong pressure to forget about defense if Stalin acts as if he's coming to terms.

Any kind of negotiations will make Washington reach for the aspirin.  
Each issue is loaded with dynamite:

Take Korea: It's possible that the Kremlin will concede a truce soon; it would put a better light on their European ventures. But a truce would be followed by Korean peace debates in the United Nations. That means all the old ghosts—Peiping's right to U. N. membership, Formosa, and Chiang Kai-shek—will rise to haunt U. S.-Allied relations.

Take Germany: Unification talks with the East Germans could create fatal delay in our integration plans. We'd have to rewrite our entire European policy, throw out the European army and the Schuman Plan. We'd have to fight hard to keep a unified Germany on our side.

Take trade: The present meeting in Moscow is more of a political than a business gambit. The slogan—"U. S.-imposed rearmament or peaceful trade with the East"—sounds good. Actually, the meeting is just the beginning of a far-reaching offensive against U. S.-European economic cooperation.

Some businessmen, who already resent the embargo on shipping strategic goods to the East, will be offered easy trade deals. They'll insist that the embargo be relaxed, later find themselves tied to impossible Russian trade conditions.

# INTERNATIONAL OUTLOOK (Continued)

**BUSINESS WEEK**  
**APRIL 12, 1952**

Churchill's Conservatives got a bad shaking up by the heavy swing to Labor in county elections.

The Labor surge was strongest in London, where national issues count on a par with local doings. Laborites, until now licking the wounds of October's defeat and the Bevan revolt, are bursting with confidence.

Behind the vote: Higher living costs resulting from Chancellor Butler's cut in subsidies; unemployment and short work due largely to trouble in international trade (page 192) and tough credit policies.

•  
Actually, Churchill isn't seriously weakened. But he does have to think more about his popularity now.

He had planned to take the distasteful deflation measures quickly, expecting some loss of support. Then, in two years or so, he could show Britons a strong national recovery.

But the Conservative party didn't reckon on such a heavy vote loss. So it's pressuring Churchill and his cabinet to slow down some.

•  
British businessmen are hopping mad about Chancellor Butler's new excess profits tax.

The tax is patterned on the U. S. model. But its effect would be much more drastic. Company profits in the base years—1947 to 1949—were depressed by delayed reconversion from war, fuel and dollar crises, the effort to regain lost markets, and devaluation. Also, depreciation allowances are much slimmer in the Butler tax.

Chances are that Butler will yield—at least partially.

•  
Meantime, Conservatives can point to some healthy results from their economic medicine.

The pound shows strength. The gold and dollar deficit of the sterling area was only \$71-million last month; the total first-quarter deficit is down to \$636-million after a disastrous \$940-million in the last quarter of 1951. Actually, by the end of the month, reserves began to rise.

There's still an uphill fight for solvency. The over-all balance of payments deficit, though reduced, hasn't been erased.

•  
French Premier Pinay has chalked up some surprising successes.

By pushing his budget through the National Assembly, he's launched France's first conservative financial program since the war. He has already won solid support from big and small businessmen. That bodes well for his plan to put hidden capital to work through a fiscal amnesty for repentant tax dodgers.

Skeptics who felt Pinay couldn't possibly last now give his government a better chance to hang on, maybe stabilize the French economy.

•  
Don't write off this week's Bolivian coup as just another Latin American palace revolution. It could have bitter repercussions.

Some observers call it the first major success of "Peronism" outside Argentina. Behind the coup is Victor Paz Estenssoro, who was booted out of Bolivia last year when the military took over. He's been sojourning in Buenos Aires, a close buddy of President Peron.

Paz Estenssoro's National Revolutionary Movement, close kin to Peronism, has Bolivia's tin miners completely sewed up. It's committed to nationalizing Bolivia's all-important tin mines, among other things.

## BUSINESS ABROAD



BIGGER PAYCHECKS for these steelworkers—result of study made for Brazilian National Steel Co. by Payne & Associates, as . . .

## Brazil Tries U.S. Management Methods



CONSULTANT Bruce Payne eyes wide-open field in Brazil's industry.

Brazilians have been sold for many years on U.S. technical knowhow. They've seen it pay off in U.S. branch plants and in the work U.S. engineers have done for Brazilian companies. Banking on that, an American firm, Bruce Payne & Associates, decided now is the time to sell Brazil on a different kind of knowhow. It has opened an office in Rio de Janeiro to promote the skill of the American management consultant.

The man behind the new Brazilian venture is 41-year-old Bruce Payne, company president. Payne already has a foot well inside the door: His firm is in the middle of a year's contract with Brazilian National Steel Co., which runs Brazil's big modern steel plant at Volta Redonda.

• **Same Service**—Payne is offering Brazil the same across-the-board services he sells in the U.S.—organizational planning, personnel and labor relations, surveys, manufacturing and sales management. (Payne doesn't handle construction or finance.) He has two Brazilian companies nibbling. One, a

textile company, is considering a survey of productivity and labor incentives. The other, which manufactures electrical products, may ask Payne to plan an expansion program.

Two American companies—one in chemicals and the other in industrial and mining appliances—have Payne looking over the Brazilian picture for them. After making preliminary marketing surveys for both, Payne now has a contract with the chemical firm to pick a plant site in Brazil. For the other, he is weighing the advantage of setting up a local sales organization to pave the way for manufacturing operations.

• **Promise of More**—It was with the prospect of this kind of business in mind that Payne decided to take his present contract with Brazilian National Steel Co., a public-private corporation. A preliminary survey last year led him to two conclusions: (1) BNSC is a well-run steel operation, even by American standards, and is setting a management pattern in Brazil; (2) a satisfactory job for this



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UNITED STATES STEEL

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in three months what might  
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BRAZIL starts on p. 189

company would open up other opportunities in Brazil. Unlike some other consultant firms, Payne & Associates is only interested in working with companies that have fairly high efficiency to start with.

Payne & Associates got its start in Brazil when BNSC officials picked it last May from among 13 American management consultant firms to take a preliminary look at efficiency in their steel operations. Payne was well equipped for this particular job, since in the late thirties he was chief industrial engineer for Republic Steel's Cleveland plant.

• **A 24-Hour Job**—Payne went to Brazil personally to make the preliminary survey. For six weeks he worked pretty much night and day with Barney McCarthy—a top technical adviser at Volta and an old friend from Payne's Republic days—and with two of BNSC's top Brazilian engineers, Newton Cotrim and Major Ciro Borges. He kept in constant touch with the president, Gen. Sylvia Raulino de Oliveira.

This job led to a year's contract (on a per-diem basis at approximately Payne's U.S. rates) for a company-wide wage evaluation plus a study of incentives and a supervisory training plan.

Payne packed Harry A. Dorsey, his director of industrial engineering, off to Brazil to head up this work. By September Dorsey was south of the equator, boning up on Portuguese as well as the Brazilian industrial picture.

• **First Stage**—The wage and salary survey is now complete. It covered 12,500 employees in the BNSC operations—including the Rio office headquarters, the steel plant at Volta Redonda, coal mining at Santa Catarina, and ore operations at Minas Geraes. It evaluated 12 major factors that make up an industrial job, such as education, experience, physical demand, responsibility, hazards, and the like.

As a direct result of the evaluation, BNSC set up a whole new wage scale for its operations early this year. Inequities in the lower-paid brackets were corrected first, but the changes covered everyone in the company except a few top officers and directors. The evaluation gave rise to a minimum 20% pay increase for all employees.

• **In the Works**—With the wage problem out of the way, Dorsey sat down



and worked out an incentive scheme under which the average employee has a chance of earning 25% more than his base pay. This was a typical American time-study job.

Now in the works is a plan for supervisory training. It will cover about 450 supervisory personnel, use the same training films Payne shows in the U.S.

After that, Payne will start working on a catch-all assignment for BNSC called "special projects." These will be economic studies covering such questions as an expansion in dock equipment, reclaiming of scrap, operation of limestone quarries, and ordering and billing procedures.

• **Well-Pleased**—Payne is very impressed with how fast his men are doing the BNSC job. As he sees it, they've accomplished in three months what might have taken a year in the United States.

That's partly because of the zeal of BNSC's management. But it's also because the unions are easier to work with in Brazil than in the U.S. For one thing, there aren't the kind of workload restrictions you run into here. And Brazilian unions, he says, don't stick their necks into management's problems at all.

Payne's contract with Brazilian National Steel Co. puts him in on the ground floor in Brazil. He's the only American management consultant who has ever had such an important Brazilian contract of this type, and the only one with an office on the spot. (Just before Payne opened his Rio office late in February, he set up an international division in his firm—Bruce Payne & Associates International, Inc.)

• **Not Alone**—But for some of his services, Payne does have competition in Brazil. For example, McCann-Erickson has a branch in Brazil, which acts as a marketing as well as advertising consultant.

For some months now McGraw-Hill Overseas Business Services also has been conducting market surveys in Brazil for American companies. And OBS is now dickering with a big U.S. concern for a wage evaluation study in its Brazilian branch operation.

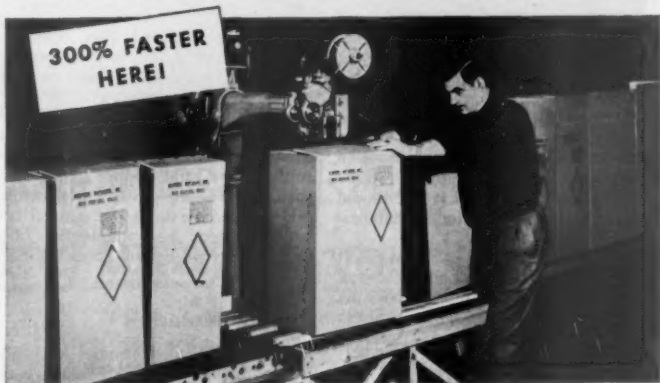
Payne's big problem, though, is to convince Brazilian business that efficiency is really important. Right now supply is so far behind demand in Brazil that it's a cinch to make profits of 40% and more without trying very hard. That's not the kind of business climate that makes people efficiency-conscious.

Still, Payne figures it this way: Labor costs in Brazil are going up, and that should soon make more companies take a closer look at productivity—especially if they see American management methods paying off in BNSC.



1. Bottoms sealed 80% faster than with tape, reports this novelty manufacturer. He now bottoms his cartons at the start of his conveyor system with a Bostitch bottom-stitcher, which makes its own staples from wire. Girls rapidly fill those cartons as they speed along the conveyor.

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2. One man does the work of three at the other end of the same conveyor... with a Bostitch top-stitcher replacing tape. This novelty maker also says that his staples cost him only 1/2 as much as tape per carton... his cartons are much stronger and neater... his workers happier.

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# World Trade: Leveling, Not Crashing

● Trade in the Western world is tapering off after the post-Korea boom. Businessmen are worried.

● There's no real crash in sight, though. Too many factors are working to stabilize trade at a fairly high level.

● In the end, world trade's future depends on U.S. economic health and on U.S. foreign policy.

Communist propaganda planners picked a good time to stage their East-West trade conference, now under way in Moscow. Last weekend's glib, grandiose Soviet offer of up to \$10-billion worth of trade with the capitalist world (page 187) came just as many Western businessmen were worrying about a trade slump. A pessimist fringe has even spotted what it thinks are the first symptoms of a major recession in the world's business.

• **Uneasy Stabilization**—What's happened—and what Moscow wants to capitalize on—is the end of the trade boom touched off by the Korean War. It doesn't follow, however, that a serious deflationary spiral or depression is on the way. The worst many trade experts look for in upcoming months is a "slight" to "moderate" drop in trade from the sky-high 1951 levels, followed by a perhaps uneasy period of stabilization.

What happens then is a tossup. It depends on the tenor of the cold war, the pace of rearmament, and, above all, the health of the United States economy.

## I. Stabilizers of Trade

In a series of articles in the Dept. of Commerce's Foreign Commerce Weekly, Henry Chalmers is giving major trade trends an official going-over. The gist: Businessmen will find a lot tougher sledding for sales abroad of all consumer goods and some capital equipment. Competition will be fierce as most industrial nations unleash determined export drives. Then, too, West Germany and Japan are back on the world sales beats with a vengeance.

However, for raw material producers, Western rearmament will probably keep demand propped at about present levels.

• **Four Factors**—Here's a rundown on the main factors behind the present world trade stabilization:

• Many nations have run short of foreign exchange—especially dollars. Rearmament and unfavorable terms of trade drained Western Europe's coffers

after Korea. The primary producers spent their foreign exchange on a buying spree last year. That's the big reason for the slashing import cuts that have been made by Commonwealth countries, Western Europe, and Latin America.

• Britain and France, key trading nations, are taking stiff doses of disinflation to balance their foreign trade books. This further cuts demand for imports.

• Many Latin American and Asian markets are saturated with consumer goods. Importers have their money tied up in unsold goods, can't take up newly landed shipments.

• World production of key raw materials is up substantially since 1950. Synthetic rubber is up 75%; natural rubber, zinc, and copper about 5%; steel, 10%; oil, 15%. Meanwhile, prices have nose-dived—the general raw material index has plummeted from 40% above pre-Korean levels to only 15%.

## II. Raw Materials

Save for certain consumer lines (the world markets for textiles especially seem in the throes of a major contraction), all this doesn't add up to a severe trade slump. Western defense will maintain a steady demand for raw materials. The stretchout in U.S. arming merely means that the rate at which raw materials are chewed up will stay about the same, instead of rising as anticipated.

On balance, the U.S. may wind up buying more raw materials abroad this year than last. The government has begun buying tin from Malaya and the Congo. Aluminum and natural rubber purchases may rise. U.S. private inventories of nonferrous metals, rubber, wool, etc., began to tip downward at the end of 1951. They'll probably continue to drop for a few months longer as U.S. manufacturers wait for world prices to hit a trough. But in the second half of the year, they're likely to rise again.

• **Can Resume Buying**—That means the income of primary producers will hold

up—though below the artificially high post-Korea peaks. Some producers may be able to relax their new import controls as reserves build up again. And some restrictions were slapped on only for seasonal reasons. Latin American pocketbooks, for example, will start filling as new coffee and cacao crops come in.

## III. West Europe's Pinch

It's a little different story for Britain and other Western European countries, squeezed both by rearmament and the terms of trade. The post-Korea rush for raw materials also pushed up prices for Europe's capital and consumer goods. But the climb came late and never caught up with raw material prices. European countries will have to keep tight control on their pursestrings.

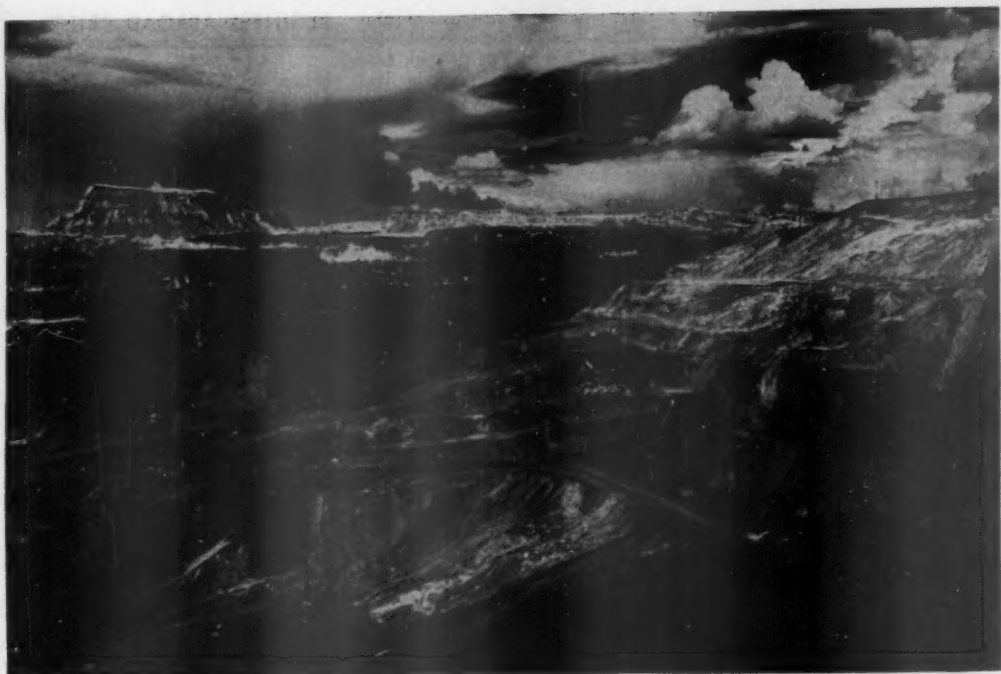
• **Bootstrap Lift**—The import barriers erected by the primary producers face West Europe and Britain with a long uphill fight for solvency. Britain has taken stern measures, with some good results already. The new British policy of diverting hard goods to export may offset reduced consumer goods sales. But at best, British trade will stabilize below last year's levels.

• **Fear Higher Tariff**—It's the outlook for earning badly needed U.S. dollars that worries many foreign businessmen. Already, they see a new protectionist offensive gathering steam in Congress (BW—Apr. 5 '52, p. 132). And they're pretty well convinced that, if they have any large success in increasing U.S. sales, it will provoke countersteps, especially in an election year.

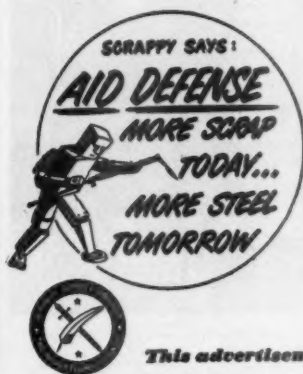
• **Their Own Inflation**—Other factors will weigh on Europe's trade—such as the success of major trading nations in controlling internal inflation. France is the worst offender, and it's anybody's guess what will happen there. Premier Pinay has already succeeded in bringing the first price drop in 22 months. But the betting in Paris is that he won't stay in office long enough to get solid results. If Pinay falls, a devaluation of the franc is almost certain.

The amount of U.S. aid, especially economic funds, is important, of course. Many European businessmen are also counting on the long-discussed U.S. military "off-shore procurement" program (picture, page 194) to help prop their economies.

• **Payments Union**—The future development of the European Payments Union will figure, too. EPU, which has stimulated substantial trade among the Marshall Plan nations, is up for renewal in June. EPU needs \$200-million more working capital; the U.S. insists the



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member nations pay it themselves. Also, a solution for the chronic credit balances of nations such as Belgium must be found. Negotiations will be long and difficult. Nonetheless, it's likely that EPU will get a new lease on life and that it will continue as a European clearinghouse for multilateral trade settlements.

• **Depends on U.S.—Whether the present** trade "stabilization" or "shakeout" remains a healthy readjustment after the abnormal Korea boom, or turns into a dangerous deflationary spiral, depends largely on the U.S.—the state of business, the aid and trade policy of Washington. Even a mild U.S. recession would well-nigh floor the world's economy.

A United Nations study group has come up with dire calculations on what would happen if U.S. employment fell no more than 4% in one year and fully recovered itself the next year. That would be a fairly shallow recession from the U.S. point of view. But the figuring is that, over a two-year period, it would reduce the world's dollar supply by \$10-billion. That's far more than Britain and other countries could make up from their scanty gold and dollar reserves.

## BUSINESS ABROAD BRIEFS

**Wings for West Germany:** Transport Minister Beebohm says a new German airline will begin domestic flights within a few months, backed by federal, provincial, and private financing. Eventually, the airline will use 30 planes on European, transatlantic, and African routes.

The "Free Port of Guam" idea—advanced by the territory's governor, Carlton Skinner (BW—Oct. 6 '51, p178)—has been killed by Interior Dept. as "impractical at the present time." The Navy especially doesn't cotton to the plan, argues that port facilities at Guam aren't available.

**Brazil's Amapa Territory,** site of the manganese development in which Bethlehem Steel Co. is involved, has turned up another important mineral deposit. Preliminary exploration along the Amazon has located a bed of chromite ore—54% metal content—running to at least 150,000 tons. Meantime, construction of a 137-mi. railroad linking the manganese area with the Amazon will begin by midyear.



## You Make It; We'll Buy It

The first step in the U.S. armed forces' "off-shore" procurement program was taken at a recent showing of Air Force equipment in Frankfurt, Germany. Under this program, the U. S. will buy equipment from European makers for Western forces—using U. S. arms-aid money. Already \$600-million

has been authorized for '52 spending. European manufacturers, like the Danish representatives above, got an idea of what's needed: everything from electrical equipment to chemical products and textiles. The Air Force also got a line on manufacturers and is now waiting for their first bids.



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## Eisenhower Submits a Report Card

"Put it this way: One reason I'm here is to help defend the American standard of living."

That is what Gen. Dwight D. Eisenhower, Supreme Commander of NATO forces, reportedly told an American visitor recently. The visitor, critical of our commitments of men and money in Europe, doubted that anything was being gained by it all.

Eisenhower's statement is a blunt expression of what enlightened self-interest in foreign policy means. And it finds some striking documentation in his 12,000-word report of NATO's first year. He says of American rearmament:

Each new medium tank requires 1,915 pounds of chromium of which 99% of the ore is imported; 950 pounds of manganese of which 92% is imported; 520 pounds of nickel of which 92% is imported; 100 pounds of tin of which 78% is imported; 6,512 pounds of bauxite (the ore of aluminum) of which 65% is imported; 1,484 pounds of copper of which 29% is imported.

The general goes on to point out that these critical materials required from abroad for our tank production are also vital to the needs of our civilian standard of living. He concludes, "These things have become essential to the full productivity and well-being of an industrial nation." In other words, we cannot live to ourselves alone, even though some Americans would like to.

That is the practical, self-interest basis for the Eisenhower mission, as he views it. He wants to make sure that Communist encroachment does not deny us the things we need to live and prosper. And framing this defense of our standard of living, as he explains, is the larger concern: the defense of our whole way of life.

The Eisenhower report is a remarkable document. Its range of subjects is sweeping. Whether the report was designed to serve as a campaign document in the forthcoming Presidential race is being argued. One thing is clear: It provides ample support for Eisenhower's statement, "I can state accurately that a great many of the problems referred to me, and often the most difficult, are economic, political, and psychological, rather than purely military."

Its comprehensiveness reflects SHAPE's critical mission—to build and maintain a successful military coalition in peacetime. Eisenhower knows his history. He knows that such coalitions have had a dismal past. That is why he seems to regard the present military program of NATO as a passing phase.

His mind ranges often to the subject of European unity, not only as a means of hastening military security, but as an exciting new chapter in the unfolding of history. Practical man that he is, Eisenhower senses that Britain right now is not ready to let organic com-

mitments with the continent jeopardize commonwealth and empire relations. He knows, too, that American public opinion is not willing to swing behind the idea of Atlantic Union—a notion more palatable to the British.

Eisenhower hails the Schuman Plan and the European Army. He looks past them, confident they are moving to reality, to further European union efforts in the fields of electric power, agriculture, and in "standardizing money values." This last proposal, one of the startling items in the document, apparently contemplates a common currency for Europe.

The general's report is a sane, sensible argument, the best presented so far, to justify our costly and not always successful program of taking a leading part in world affairs. To the other 13 addressee nations of the report, he throws many a caveat about the limits to America's resources in supporting common defense. This emphasis confirms the belief that the execution of NATO rearmament has been in the hands of a practical man, dedicated to a supremely important task he is confident can be carried out.

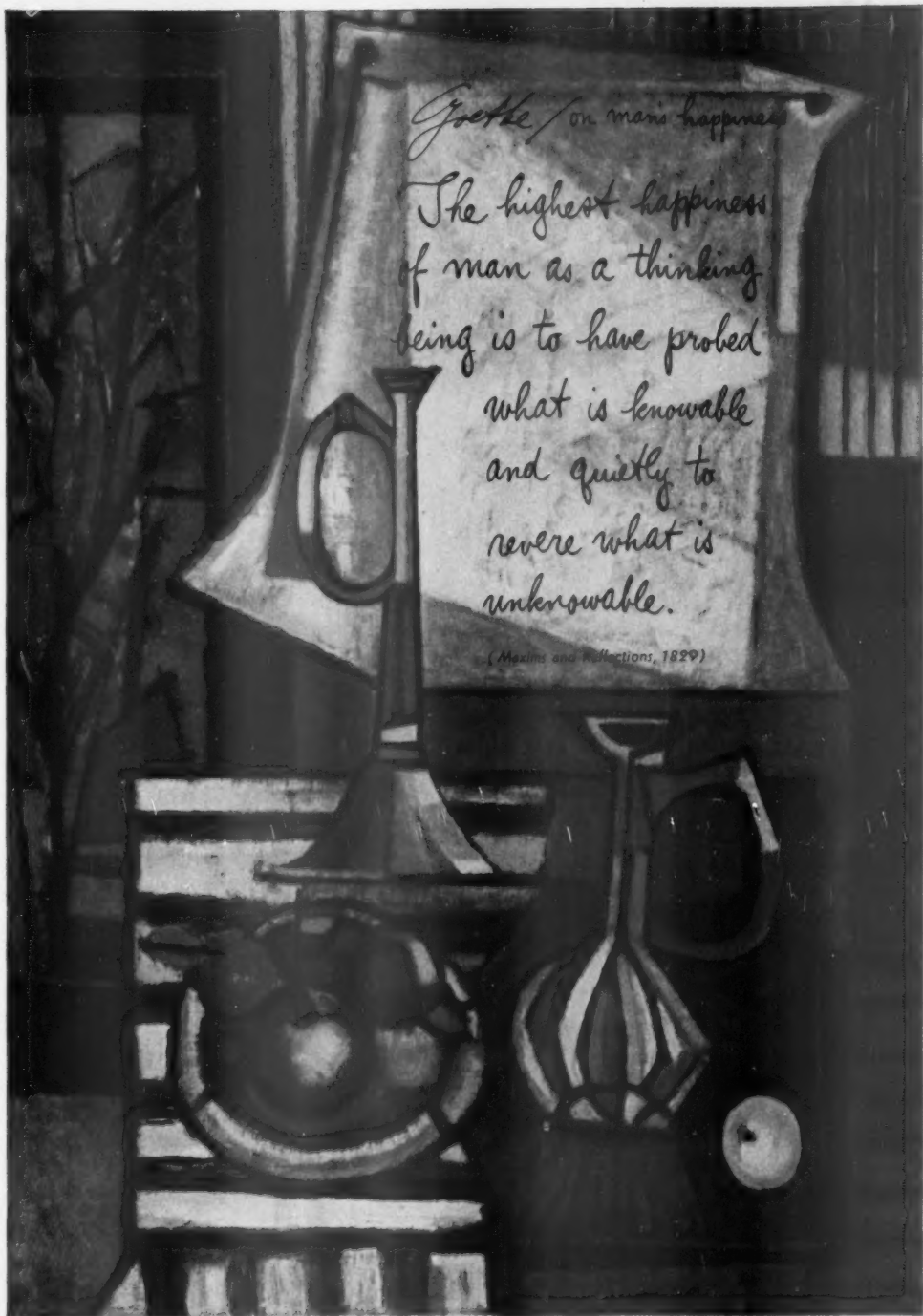
Eisenhower's report should help answer some of the difficult questions about our involvement in Europe. It should help many congressmen decide against a drastic cut in next year's foreign aid bill. We sincerely hope so.

## Horse Escort

After three hundred years of hauling horse-drawn loads across the Delaware River, the Philadelphia-Camden ferry has bowed to the competition of a modern bridge and closed down. Horses must now take to the bridge, but they won't like it. Neither will the bridge. A mile and a half of smooth concrete, eight lanes wide, curving up and down a 3% grade, is hard on a walking man, harder on an old mare hauling junk. Even in good weather, her hoofs slip. If she balks or bolts, the motor traffic snarls.

Yet the horse still has a place in this economy, still can work at a profit, still has a claim on road and bridge space. The Delaware River Joint Commission which manages bridge traffic, is trying to arrange it. Horses are to travel in the outside lane, and keep going. They are to cross only in slack hours, and after making a date with the police so that a motorized escort can go with them, ready to act if horse or wagon breaks down.

Clearly, the old mare ain't what she used to be. But neither is unmechanized man. Some bright spring day maybe both of us can be turned out to pasture while the machines take over. Ours will be reached only by a small footbridge, made of wood.



Goethe / on man's happiness

The highest happiness  
of man as a thinking  
being is to have probed  
what is knowable  
and quietly to  
revere what is  
unknowable.

(Maxims and Reflections, 1829)

Artist: Robert Rauschenberg

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